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OPERATIONAL TACTICAL DECISION AID (OTDA) FOR INFRARED
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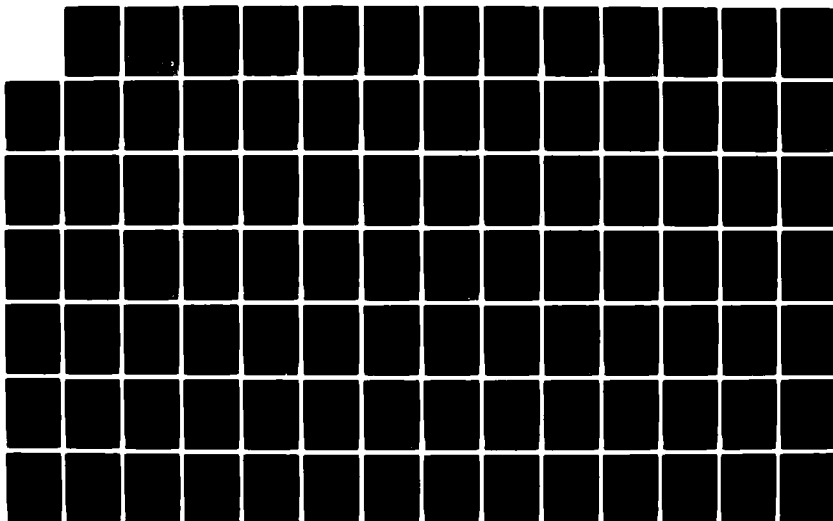
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AFGL-TR-83- 0334(III)

OPERATIONAL TACTICAL DECISION AID (OTDA) FOR
INFRARED (8-12 μ m) SYSTEMS - MARK II
MANUAL VERSION

Appendix B - Insolation and Sky Radiation Tables

Donald B. Hodges

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1577 Springhill Road, Suite 600
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September 30, 1983

Scientific Report No. 8

Approved for public release; distribution unlimited

AIR FORCE GEOPHYSICS LABORATORY
AIR FORCE SYSTEMS COMMAND
UNITED STATES AIR FORCE
HANSCOM AFB, MASSACHUSETTS 01731

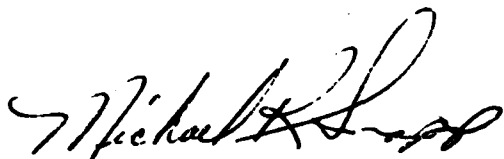
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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Tables are presented for use in determining solar irradiance and sky radiation values needed to calculate maximum lock-on range (MLOR) and maximum acquisition range (AR) from the Manual Version of the IR OTDA. A table for use in determining solar irradiance as a function of terrain elevation is also presented. Errors in computed sea level values of sky radiation as a function of terrain elevation are discussed and found to be small. 		

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PREFACE

This publication consists of a basic report and four appendixes, each issued as a separate document.

This format will facilitate operational use by accommodating the sizeable bulk of the materials presented and the CONFIDENTIAL security classification of Appendix D.

* * * *

The material contained herein is unchanged from Appendix B of SASC Report No. 3. The content of this Appendix was the work of the co-authors of SASC Report No. 3; the contributions of R. Shapiro, C. N. Touart, and R. F. Wachtmann are hereby acknowledged.

Another collaborator in this Appendix was B. A. Mareiro, Jr.

Special thanks are due to Lt. Col. R. Wright, Lt. Col. K. Wantzloebe, Maj. W. Smith, Maj. J. Elrick and other representatives of Hq. Air Weather Service who continually enriched our understanding of the operator's problems.

Throughout this study we were supported and guided by the AFGL Contract Managers: Lt. Col. K. G. Cottrell to 2 May 1983, then Mr. R. V. Cormier.

The report was typed by D. M. Connor.

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May - Aug.	69
Sep - Dec.	75
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Jan - Apr.	81
May - Aug.	87
Sep - Dec.	93
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Jan - Apr.	99
May - Aug.	105
Sep - Dec.	111
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Sep - Dec.225
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May - Aug.237
Sep - Dec.243
20 N.249
Jan - Apr.249
May - Aug.255
Sep - Dec.261
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Jan - Apr.267
May - Aug.271
Sep - Dec.275
20 S.279
Jan - Apr.279
May - Aug.285
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40 S.295
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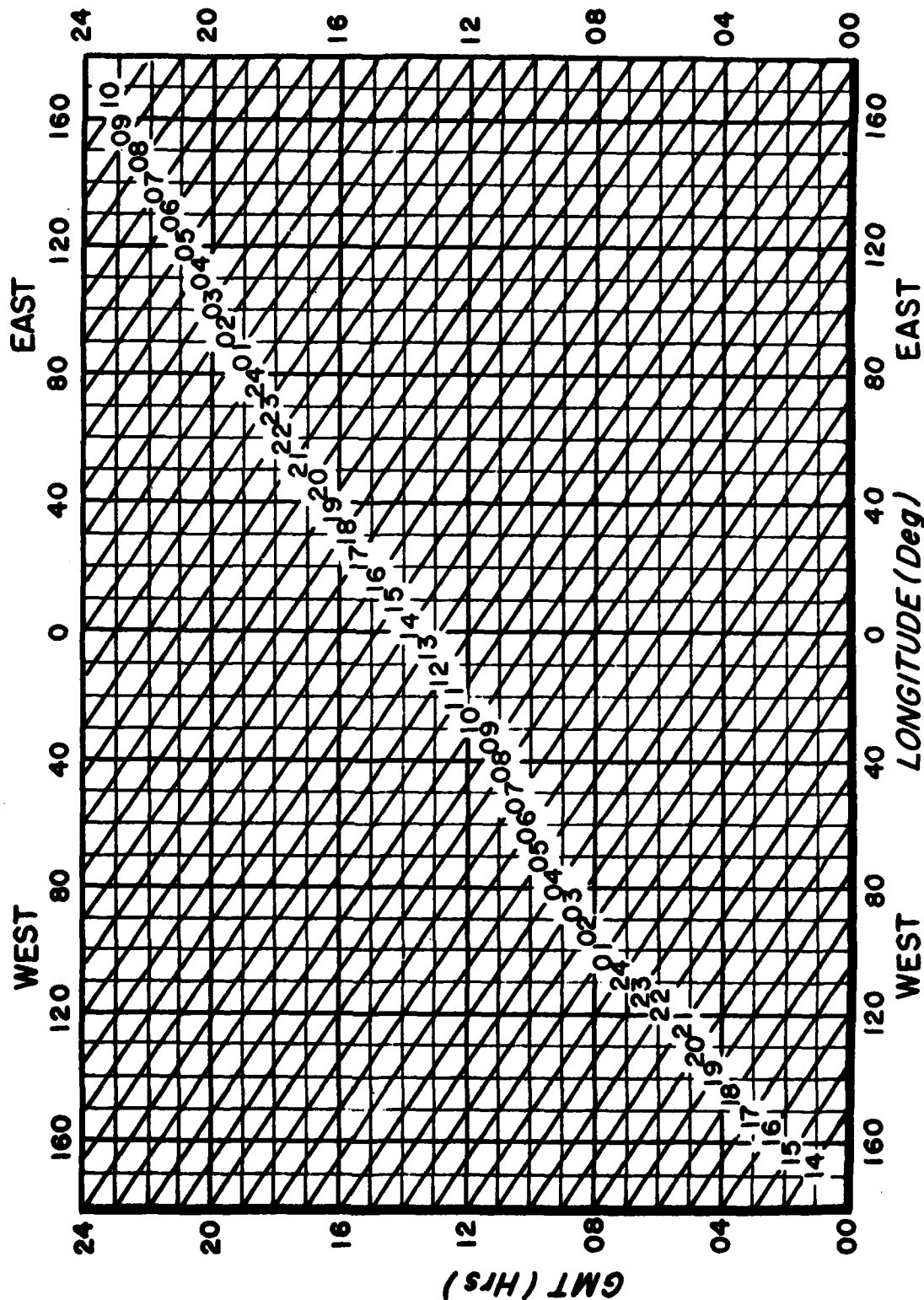


Fig. B-1. Mean Sun Time (MST) as a Function of Greenwich Mean Time (GMT) and Longitude

Mean Sun Time (MST) may be computed from the equation $MST = GMT \pm (\text{longitude}/15)$, where the expression in parenthesis is positive for east longitude and negative for west longitude.

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.. SIGNIFIES COS 2 = 1.
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MST	JAN							FEB							DATE							MAR							APR						
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30				
1000	.15	.15	.16	.17	.18	.20	.22	.25	.27	.30	.32	.35	.40	.43	.46	.49	.52	.55	.58	.61	.64	.66	.68	.70	.798	.832	.863	.892	.919	.943					
15	.16	.17	.18	.19	.20	.22	.24	.26	.29	.32	.34	.37	.42	.45	.48	.51	.54	.57	.60	.63	.65	.68	.70	.72	.823	.857	.888	.916	.942	.966					
30	.18	.18	.19	.20	.22	.24	.26	.28	.31	.33	.36	.39	.44	.47	.50	.53	.56	.59	.62	.64	.67	.69	.71	.73	.846	.873	.909	.937	.963	.986					
45	.19	.20	.21	.22	.23	.25	.27	.30	.32	.35	.38	.41	.45	.48	.51	.54	.57	.60	.63	.65	.68	.70	.73	.74	.865	.897	.927	.955	.980	.003					
1100	.20	.21	.22	.23	.24	.26	.28	.31	.33	.36	.39	.42	.47	.50	.53	.56	.58	.61	.64	.67	.69	.72	.74	.75	.881	.912	.942	.970	.995	.017					
15	.21	.22	.23	.24	.25	.27	.29	.32	.35	.37	.40	.43	.48	.51	.54	.57	.59	.62	.65	.69	.70	.72	.74	.76	.893	.925	.954	.981	.006	.028					
30	.22	.22	.23	.25	.26	.28	.30	.33	.35	.38	.41	.44	.48	.51	.54	.57	.60	.63	.66	.69	.71	.73	.75	.77	.902	.933	.962	.989	.014	.036					
45	.22	.23	.24	.25	.27	.29	.31	.33	.36	.39	.41	.44	.49	.52	.55	.58	.61	.63	.66	.69	.71	.73	.75	.77	.908	.939	.967	.994	.018	.040					
1200	.22	.23	.24	.25	.27	.29	.31	.34	.36	.39	.42	.45	.49	.52	.55	.58	.61	.64	.67	.69	.71	.73	.75	.77	.910	.941	.969	.995	.019	.041					
15	.22	.23	.24	.25	.27	.29	.31	.34	.36	.39	.42	.45	.49	.52	.55	.58	.61	.63	.67	.69	.71	.73	.75	.77	.909	.939	.968	.993	.017	.039					
30	.22	.23	.24	.25	.27	.29	.31	.34	.36	.39	.42	.45	.49	.52	.55	.58	.61	.63	.66	.69	.71	.73	.75	.77	.905	.935	.962	.988	.012	.033					
45	.22	.22	.23	.25	.26	.28	.31	.33	.36	.39	.41	.44	.49	.52	.55	.57	.60	.63	.66	.69	.70	.72	.74	.76	.897	.927	.954	.980	.003	.024					

*** SIGNIFIES COS Z = 1.
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SOLAR PARAMETERS
XO (W/M*2.)

TABLE B-1

JAN-APR

54 N

MST	DATE												MAR												APR																	
	JAN			FEB			MAY			JUN			JUL			AUG			SEP			OCT			NOV			DEC			JAN			FEB			MAR			APR		
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30					
1300	.21	.21	.23	.24	.26	.28	.30	.33	.35	.38	.41	.44	.48	.51	.54	.57	.59	.62	.65	.67	.69	.71	.73	.75	.65	.67	.69	.71	.73	.75	.65	.67	.69	.71	.73	.75	.65	.67	.69	.71	.73	.75
	293	303	320	340	364	391	421	461	496	532	570	608	670	707	744	780	815	848	886	915	942	968	991	1012	886	915	942	968	991	1012	886	915	942	968	991	1012	886	915	942	968	991	1012
15	.20	.21	.22	.23	.25	.27	.29	.32	.34	.37	.40	.43	.47	.50	.53	.56	.58	.61	.64	.65	.68	.70	.72	.74	.64	.65	.68	.70	.72	.74	.64	.65	.68	.70	.72	.74	.64	.65	.68	.70	.72	.74
	280	290	307	327	352	379	409	449	484	520	558	596	657	694	731	767	801	834	871	900	927	953	978	997	871	900	927	953	978	997	871	900	927	953	978	997	871	900	927	953	978	997
30	.19	.19	.21	.22	.24	.26	.28	.31	.33	.36	.39	.42	.45	.49	.52	.54	.57	.60	.62	.65	.67	.69	.71	.73	.62	.65	.67	.69	.71	.73	.62	.65	.67	.69	.71	.73	.62	.65	.67	.69	.71	.73
	263	273	290	311	336	363	394	434	469	505	542	580	641	678	714	750	784	817	853	882	909	934	957	979	853	882	909	934	957	979	853	882	909	934	957	979	853	882	909	934	957	979
45	.17	.18	.19	.21	.22	.24	.27	.30	.32	.35	.37	.40	.45	.47	.50	.53	.55	.58	.61	.63	.65	.67	.69	.71	.61	.63	.65	.67	.69	.71	.61	.63	.65	.67	.69	.71	.61	.63	.65	.67	.69	.71
	243	254	271	292	317	345	375	415	450	486	523	561	621	658	694	730	763	796	832	861	888	913	936	957	832	861	888	913	936	957	832	861	888	913	936	957	832	861	888	913	936	957
1400	.16	.16	.18	.19	.21	.23	.25	.28	.31	.33	.36	.39	.43	.46	.49	.51	.54	.56	.59	.61	.64	.66	.67	.69	.59	.61	.64	.66	.67	.69	.59	.61	.64	.66	.67	.69	.59	.61	.64	.66	.67	.69
	220	231	249	270	295	323	354	393	428	464	501	539	599	635	671	706	740	772	808	837	864	889	912	933	808	837	864	889	912	933	808	837	864	889	912	933	808	837	864	889	912	933
15	.14	.15	.16	.17	.19	.21	.23	.26	.29	.31	.34	.37	.41	.44	.47	.49	.52	.54	.57	.59	.62	.64	.65	.67	.57	.59	.62	.64	.65	.67	.57	.59	.62	.64	.65	.67	.57	.59	.62	.64	.65	.67
	194	205	223	245	270	290	329	369	403	440	476	514	573	609	645	680	713	745	781	810	836	861	885	906	781	810	836	861	885	906	781	810	836	861	885	906	781	810	836	861	885	906
30	.12	.13	.14	.15	.17	.19	.21	.24	.27	.29	.32	.35	.39	.42	.45	.47	.50	.52	.55	.57	.59	.61	.63	.65	.55	.57	.59	.61	.63	.65	.55	.57	.59	.61	.63	.65	.55	.57	.59	.61	.63	.65
	165	177	195	217	242	271	301	341	376	412	448	485	544	581	616	650	683	715	751	780	806	831	855	876	751	780	806	831	855	876	751	780	806	831	855	876	751	780	806	831	855	876
45	.10	.10	.12	.13	.15	.17	.19	.22	.25	.27	.30	.33	.37	.40	.42	.45	.47	.50	.53	.55	.57	.59	.61	.63	.53	.55	.57	.59	.61	.63	.53	.55	.57	.59	.61	.63	.53	.55	.57	.59	.61	.63
	134	146	165	187	212	240	271	310	345	381	417	454	513	549	584	618	651	683	719	747	774	799	822	844	719	747	774	799	822	844	719	747	774	799	822	844	719	747	774	799	822	844
1500	.07	.08	.09	.11	.13	.15	.17	.20	.22	.25	.27	.30	.34	.37	.40	.42	.45	.47	.50	.52	.54	.56	.58	.60	.50	.52	.54	.56	.58	.60	.50	.52	.54	.56	.58	.60	.50	.52	.54	.56	.58	.60
	100	113	131	153	179	207	238	277	312	347	384	420	478	514	549	583	616	647	683	712	738	764	787	809	683	712	738	764	787	809	683	712	738	764	787	809	683	712	738	764	787	809
15	.05	.05	.07	.08	.10	.12	.14	.17	.20	.22	.25	.28	.32	.34	.37	.40	.42	.44	.47	.49	.52	.54	.55	.57	.47	.49	.52	.54	.55	.57	.47	.49	.52	.54	.55	.57	.47	.49	.52	.54	.55	.57
	064	077	095	118	143	172	202	241	276	311	347	384	442	477	512	546	578	610	646	674	701	726	750	772	646	674	701	726	750	772	646	674	701	726	750	772	646	674	701	726	750	772
30	.02	.03	.04	.06	.08	.10	.12	.14	.17	.19	.22	.25	.29	.32	.34	.37	.39	.42	.44	.47	.49	.51	.53	.54	.44	.47	.49	.51	.53	.54	.44	.47	.49	.51	.53	.54	.44	.47	.49	.51	.53	.54
	026	039	058	080	105	134	164	203	238	273	309	345	402	438	472	506	538	570	606	634	661	686	710	733	606	634	661	686	710	733	606	634	661	686	710	733	606	634	661	686	710	733
45	.00	.00	.01	.03	.05	.07	.09	.12	.14	.17	.19	.22	.26	.29	.31	.34	.36	.38	.41	.43	.46	.48	.49	.51	.41	.43	.46	.48	.49	.51	.41	.43	.46	.48	.49	.51	.41	.43	.46	.48	.49	.51
	000	000	017	040	065	094	124	163	197	232	269	304	361	396	430	464	496	527	563	592	619	645	669	691	563	592	619	645	669	691	563	592	619	645	669	691	563	592	619	645	669	691

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

SOLAR PARAMETERS COS Z
XO (W/M*2.)

TABLE B-1

JAN-APR 54 N

MST	DATE																			
	JAN				FEB				MAR				APR							
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1900	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.03	.05
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	007	036	065
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	017
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000

JAN-APR 54 N TABLE B-1 SOLAR PARAMETERS COS Z *** SIGNIFIES COS Z =1.
X0 (W/M**2.) ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					JUL					AUG				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30		
0300	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
0400	.00	.00	.00	.01	.02	.03	.04	.05	.05	.05	.05	.04	.04	.03	.01	.00	.00	.00	.00	
15	.00	.00	.02	.04	.05	.06	.07	.08	.08	.08	.08	.07	.07	.06	.05	.03	.02	.00	.00	
30	.02	.04	.05	.07	.08	.10	.11	.11	.11	.11	.11	.11	.10	.09	.08	.06	.05	.03	.00	
45	.05	.07	.09	.11	.12	.13	.14	.14	.15	.15	.14	.14	.13	.12	.11	.10	.08	.07	.00	
0500	.09	.11	.12	.14	.15	.16	.17	.18	.18	.18	.18	.17	.16	.16	.14	.13	.12	.10	.00	
15	.12	.14	.16	.18	.19	.20	.21	.21	.21	.21	.21	.21	.20	.19	.18	.17	.15	.14	.02	
30	.16	.18	.20	.21	.22	.23	.24	.25	.25	.25	.25	.24	.23	.23	.21	.20	.19	.17	.05	
45	.19	.21	.23	.25	.26	.27	.28	.28	.28	.28	.28	.28	.27	.26	.25	.24	.22	.21	.11	
	262	268	310	330	346	358	369	374	376	378	372	365	356	344	330	314	296	278	123	

*** SIGNIFIES COS 2 = 1.
ADD 1000 TO VALUES PRECEDED BY *

SOLAR PARAMETERS
XO (W/M**2.)

COS Z

TABLE B-1

84 N

MAY-AUG

MST	MAY					JUN					JUL					AUG								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
0600	.23	.25	.27	.28	.30	.31	.31	.32	.32	.32	.32	.31	.30	.30	.29	.27	.26	.24	.23	.21	.19	.17	.15	.13
	311	337	359	378	394	406	416	421	423	422	419	412	403	391	378	362	344	324	299	276	252	227	201	174
15	.27	.29	.30	.32	.33	.34	.35	.35	.35	.35	.35	.35	.34	.33	.32	.31	.30	.28	.26	.24	.23	.21	.19	.17
	361	386	408	426	441	453	463	468	470	469	465	459	450	438	425	409	392	373	348	326	302	278	252	225
30	.31	.32	.34	.36	.37	.38	.38	.39	.39	.39	.39	.38	.38	.37	.36	.35	.33	.32	.30	.28	.26	.25	.23	.21
	411	435	456	474	489	501	510	515	517	516	512	505	497	485	472	457	440	421	397	375	352	328	302	276
45	.34	.36	.38	.39	.40	.41	.42	.42	.42	.42	.42	.42	.41	.40	.39	.38	.37	.35	.33	.32	.30	.28	.26	.24
	460	484	504	522	536	548	557	561	563	562	558	552	543	532	519	504	487	469	445	424	401	377	352	326
0700	.38	.40	.41	.43	.44	.45	.45	.46	.46	.46	.46	.45	.45	.44	.43	.42	.40	.39	.37	.35	.34	.32	.30	.28
	508	531	552	569	583	594	603	607	609	607	604	597	589	578	565	551	535	517	493	472	450	426	402	376
15	.41	.43	.45	.46	.47	.48	.49	.49	.49	.49	.49	.49	.48	.47	.46	.45	.44	.42	.41	.39	.37	.36	.34	.32
	555	578	598	615	629	639	648	652	654	652	649	642	634	624	611	597	581	563	540	520	498	475	450	425
30	.45	.47	.48	.49	.51	.51	.52	.52	.53	.53	.52	.52	.51	.50	.50	.48	.47	.46	.44	.43	.41	.39	.37	.35
	602	624	644	660	673	684	692	696	697	696	693	686	678	668	656	642	626	609	586	565	545	522	498	473
45	.48	.50	.51	.53	.54	.55	.55	.56	.56	.56	.56	.55	.55	.54	.53	.52	.51	.49	.47	.46	.44	.42	.41	.39
	647	669	688	704	717	727	735	739	740	739	735	729	721	711	699	686	670	654	631	612	590	568	544	519
0800	.51	.53	.55	.56	.57	.58	.58	.59	.59	.59	.59	.58	.58	.57	.56	.55	.54	.53	.51	.49	.48	.46	.44	.42
	690	712	730	746	759	768	777	780	782	780	777	771	763	753	742	728	713	697	675	656	635	612	589	564
15	.54	.56	.58	.59	.60	.61	.61	.62	.62	.62	.62	.61	.61	.60	.59	.58	.57	.56	.54	.52	.51	.49	.47	.45
	732	753	771	787	799	809	816	820	821	820	817	811	803	794	783	770	755	739	717	699	677	656	632	608
30	.57	.59	.61	.62	.63	.64	.64	.65	.65	.65	.65	.64	.64	.63	.62	.61	.60	.59	.57	.55	.54	.52	.50	.48
	772	793	811	826	838	847	855	858	859	858	855	850	842	833	822	809	795	779	758	739	718	697	674	649
45	.60	.62	.63	.65	.66	.66	.67	.67	.68	.68	.67	.67	.66	.66	.65	.64	.63	.62	.60	.59	.57	.55	.53	.51
	810	830	848	862	874	883	891	895	896	895	891	886	879	870	859	847	833	817	797	778	758	738	713	689

MAY-AUG 54 N TABLE B-1 SOLAR PARAMETERS COS Z *** SIGNIFIES COS Z = 1. ADD 1000 TO VALUES PRECEDED BY *

MST

DATE

MAY

JUN

JUL

AUG

	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
0900	.63	.65	.66	.67	.68	.69	.70	.70	.70	.70	.70	.70	.69	.68	.68	.67	.66	.64
	846	866	883	897	909	918	925	929	930	929	926	921	914	905	895	882	869	853
15	.65	.67	.68	.70	.71	.71	.72	.72	.73	.73	.72	.72	.72	.71	.70	.69	.68	.67
	879	899	916	930	941	950	957	961	962	961	958	953	947	938	928	916	902	887
30	.68	.69	.71	.72	.73	.74	.74	.75	.75	.75	.75	.74	.74	.73	.72	.71	.70	.69
	910	929	946	960	971	980	987	990	992	991	988	984	977	969	959	947	934	919
45	.70	.71	.73	.74	.75	.76	.76	.77	.77	.77	.77	.76	.76	.75	.75	.74	.73	.71
	939	957	974	987	998	007	014	018	019	018	016	011	005	997	987	976	963	948
1000	.72	.73	.75	.76	.77	.78	.78	.79	.79	.79	.79	.78	.78	.77	.77	.76	.75	.73
	964	983	999	012	023	032	039	042	044	043	041	037	031	023	013	002	990	975
15	.73	.75	.76	.77	.78	.79	.80	.80	.80	.80	.80	.80	.80	.79	.78	.77	.76	.75
	987	005	021	034	045	054	061	064	066	066	063	059	053	046	037	026	013	999
30	.75	.76	.78	.79	.80	.81	.81	.82	.82	.82	.82	.82	.81	.81	.80	.79	.78	.77
	007	025	041	054	064	073	080	084	085	085	083	079	074	066	057	047	034	020
45	.76	.78	.79	.80	.81	.82	.83	.83	.83	.83	.83	.83	.82	.82	.81	.80	.79	.78
	024	042	057	070	081	089	096	100	102	102	100	096	091	084	075	065	053	039
1100	.77	.79	.80	.81	.82	.83	.84	.84	.84	.84	.84	.84	.84	.83	.82	.81	.81	.79
	037	055	070	083	094	102	110	114	116	116	114	111	105	099	090	080	068	054
15	.78	.79	.81	.82	.83	.84	.84	.85	.85	.85	.85	.85	.84	.84	.83	.82	.81	.80
	048	065	081	093	104	113	120	124	126	127	125	122	117	110	102	092	080	066
30	.78	.80	.81	.82	.83	.84	.85	.85	.86	.86	.86	.85	.85	.85	.84	.83	.82	.81
	055	073	088	101	111	120	127	132	134	135	133	130	126	119	111	101	089	076
45	.79	.80	.82	.83	.84	.84	.85	.86	.86	.86	.86	.86	.85	.85	.84	.84	.83	.81
	059	077	092	105	115	124	132	136	139	139	136	136	131	125	117	107	095	082

MAY-AUG 54 N TABLE B-1 SOLAR PARAMETERS CCS 2 *** SIGNIFIES COS 2 = 1.
X0 (W/M*2.) ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					JUL					AUG									
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30							
1200	.79	.80	.82	.83	.84	.85	.85	.86	.86	.86	.86	.86	.86	.85	.85	.85	.84	.83	.82	.80	.79	.77	.75	.73	.71
	.060	.077	.092	.105	.116	.125	.133	.137	.140	.141	.140	.138	.133	.127	.119	.110	.098	.085		.066	.043	.028	.006	.982	.956
15	.79	.80	.81	.83	.84	.84	.85	.86	.86	.86	.86	.86	.86	.86	.85	.85	.84	.83	.82	.80	.79	.77	.75	.73	.71
	.058	.075	.090	.103	.114	.123	.131	.136	.139	.140	.139	.137	.133	.127	.119	.109	.098	.084		.066	.043	.028	.005	.981	.955
30	.78	.80	.81	.82	.83	.84	.85	.85	.86	.86	.86	.86	.86	.85	.85	.84	.83	.83	.81	.80	.78	.77	.75	.73	.71
	.052	.069	.084	.097	.108	.118	.126	.131	.134	.136	.135	.133	.129	.123	.116	.106	.095	.081		.062	.044	.024	.001	.977	.950
45	.78	.79	.80	.81	.82	.83	.84	.85	.85	.85	.85	.85	.85	.85	.84	.84	.83	.82	.81	.79	.73	.76	.74	.72	.70
	.043	.061	.076	.089	.100	.109	.118	.123	.127	.128	.128	.126	.122	.117	.109	.100	.088	.075		.055	.037	.017	.994	.969	.942
1300	.77	.78	.79	.81	.82	.82	.83	.84	.84	.84	.84	.84	.84	.84	.83	.83	.82	.81	.80	.79	.77	.75	.74	.71	.69
	.031	.049	.064	.077	.088	.098	.107	.112	.116	.118	.118	.116	.113	.107	.100	.090	.079	.065		.046	.027	.006	.983	.958	.930
15	.76	.77	.78	.80	.81	.81	.82	.83	.83	.83	.83	.83	.83	.83	.82	.82	.81	.80	.79	.78	.76	.75	.74	.72	.70
	.016	.033	.049	.062	.074	.084	.093	.098	.102	.104	.105	.103	.100	.094	.087	.078	.066	.052		.033	.014	.993	.969	.944	.916
30	.74	.76	.77	.78	.79	.80	.81	.82	.82	.82	.82	.82	.82	.82	.82	.81	.80	.79	.78	.76	.75	.73	.71	.69	.67
	.998	.015	.031	.044	.056	.066	.076	.082	.086	.088	.089	.087	.084	.079	.071	.062	.050	.036		.017	.999	.976	.952	.926	.898
45	.73	.74	.75	.77	.78	.79	.79	.80	.80	.81	.81	.81	.81	.81	.80	.80	.79	.78	.77	.75	.73	.72	.70	.68	.65
	.977	.994	.010	.024	.036	.046	.056	.062	.067	.069	.070	.069	.066	.060	.053	.043	.032	.018		.998	.978	.957	.932	.906	.877
1400	.71	.72	.74	.75	.76	.77	.78	.78	.79	.79	.79	.79	.79	.79	.79	.78	.77	.76	.75	.73	.72	.70	.68	.66	.63
	.953	.970	.986	.000	.013	.023	.033	.040	.045	.047	.048	.047	.044	.039	.032	.022	.010	.996		.976	.955	.934	.909	.882	.853
15	.69	.70	.72	.73	.74	.75	.76	.76	.77	.77	.77	.77	.77	.77	.77	.76	.75	.74	.73	.72	.70	.68	.66	.64	.62
	.926	.944	.960	.974	.987	.997	.008	.015	.020	.023	.024	.023	.020	.015	.008	.998	.986	.972		.951	.931	.909	.884	.856	.826
30	.67	.68	.70	.71	.72	.73	.74	.74	.75	.75	.75	.75	.75	.75	.75	.74	.73	.72	.71	.69	.68	.66	.64	.62	.59
	.896	.914	.931	.945	.958	.969	.980	.987	.993	.996	.997	.996	.994	.988	.981	.971	.959	.945		.924	.903	.880	.855	.827	.797
45	.64	.66	.67	.68	.70	.71	.72	.72	.73	.73	.73	.73	.73	.73	.72	.72	.71	.70	.69	.67	.63	.64	.62	.59	.57
	.864	.882	.899	.914	.927	.939	.950	.957	.963	.966	.968	.967	.964	.959	.952	.942	.930	.915		.894	.873	.850	.824	.795	.764

TABLE B-1 SOLAR PARAMETERS COS Z
 MAY-AUG 54 N X0 (W/M**2.) *** SIGNIFIES COS Z =1.
 ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					JUL					AUG				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30		
1500	.62 .63 .65 .66 .67 .68 829 848 865 880 894 906	.69 .70 .70 .71 .71 .71 917 925 931 935 936 936	.71 .70 .70 .69 .68 .66 933 928 921 911 898 883	.65 .63 .61 .59 .57 .54 861 840 816 790 761 730	.62 .60 .59 .56 .54 .52 826 805 781 754 724 692	.59 .58 .56 .54 .51 .49 789 763 743 716 686 653	.56 .55 .53 .51 .48 .46 750 723 703 675 645 612	.53 .52 .50 .47 .45 .42 710 687 661 633 602 568	.50 .49 .46 .44 .42 .39 667 644 618 589 558 524	.47 .45 .43 .41 .38 .36 623 600 573 544 512 477	.43 .42 .39 .37 .35 .32 578 554 527 497 464 429	.40 .39 .36 .34 .31 .28 532 507 479 449 416 381	.36 .34 .32 .30 .27 .25 484 459 431 400 367 331	.33 .31 .29 .26 .24 .21 436 411 382 351 317 281	.29 .27 .25 .23 .20 .17 388 362 333 301 267 230					
15	.59 .60 .62 .63 .64 .65 793 812 829 844 858 871	.66 .67 .68 .68 .68 .68 883 891 897 901 902 902	.68 .68 .67 .66 .65 .64 899 894 887 877 864 849	.62 .60 .59 .56 .54 .52 826 805 781 754 724 692	.59 .58 .56 .54 .51 .49 789 763 743 716 686 653	.56 .55 .53 .51 .48 .46 750 723 703 675 645 612	.53 .52 .50 .47 .45 .42 710 687 661 633 602 568	.50 .49 .46 .44 .42 .39 667 644 618 589 558 524	.47 .45 .43 .41 .38 .36 623 600 573 544 512 477	.43 .42 .39 .37 .35 .32 578 554 527 497 464 429	.40 .39 .36 .34 .31 .28 532 507 479 449 416 381	.36 .34 .32 .30 .27 .25 484 459 431 400 367 331	.33 .31 .29 .26 .24 .21 436 411 382 351 317 281	.29 .27 .25 .23 .20 .17 388 362 333 301 267 230						
30	.56 .58 .59 .60 .62 .63 754 773 791 807 821 833	.64 .64 .65 .65 .65 .65 846 854 860 865 867 866	.65 .65 .64 .63 .62 .61 864 859 851 841 828 812	.62 .60 .59 .56 .54 .52 826 805 781 754 724 692	.59 .58 .56 .54 .51 .49 789 763 743 716 686 653	.56 .55 .53 .51 .48 .46 750 723 703 675 645 612	.53 .52 .50 .47 .45 .42 710 687 661 633 602 568	.50 .49 .46 .44 .42 .39 667 644 618 589 558 524	.47 .45 .43 .41 .38 .36 623 600 573 544 512 477	.43 .42 .39 .37 .35 .32 578 554 527 497 464 429	.40 .39 .36 .34 .31 .28 532 507 479 449 416 381	.36 .34 .32 .30 .27 .25 484 459 431 400 367 331	.33 .31 .29 .26 .24 .21 436 411 382 351 317 281	.29 .27 .25 .23 .20 .17 388 362 333 301 267 230						
45	.53 .55 .56 .57 .59 .60 713 732 750 767 781 794	.61 .61 .62 .62 .63 .63 807 816 822 827 829 829	.62 .62 .61 .61 .60 .58 826 821 813 803 790 773	.59 .58 .56 .54 .51 .49 789 763 743 716 686 653	.56 .55 .53 .51 .48 .46 750 723 703 675 645 612	.53 .52 .50 .47 .45 .42 710 687 661 633 602 568	.50 .49 .46 .44 .42 .39 667 644 618 589 558 524	.47 .45 .43 .41 .38 .36 623 600 573 544 512 477	.43 .42 .39 .37 .35 .32 578 554 527 497 464 429	.40 .39 .36 .34 .31 .28 532 507 479 449 416 381	.36 .34 .32 .30 .27 .25 484 459 431 400 367 331	.33 .31 .29 .26 .24 .21 436 411 382 351 317 281	.29 .27 .25 .23 .20 .17 388 362 333 301 267 230							
1600	.50 .51 .53 .54 .56 .57 670 690 709 725 740 754	.58 .58 .59 .59 .60 .60 767 776 783 787 789 789	.59 .59 .58 .58 .57 .55 787 781 774 763 749 733	.56 .56 .55 .54 .53 .52 746 740 732 722 708 691	.53 .53 .52 .51 .50 .49 703 698 690 679 665 648	.50 .49 .48 .47 .45 660 654 646 635 620 603	.47 .46 .45 .44 .43 .42 615 610 601 589 575 557	.43 .43 .42 .41 .40 .38 570 564 555 543 528 510	.40 .39 .38 .37 .36 .35 524 518 509 496 481 463	.36 .36 .35 .34 .33 .31 477 471 462 449 433 415	.33 .31 .29 .26 .24 .21 436 411 382 351 317 281	.29 .27 .25 .23 .20 .17 388 362 333 301 267 230								
15	.47 .48 .50 .51 .52 .53 626 646 665 682 698 711	.55 .55 .56 .56 .57 .57 725 734 741 746 748 748	.56 .56 .55 .54 .53 .52 746 740 732 722 708 691	.53 .53 .52 .51 .50 .49 703 698 690 679 665 648	.50 .49 .48 .47 .45 660 654 646 635 620 603	.47 .46 .45 .44 .43 .42 615 610 601 589 575 557	.43 .43 .42 .41 .40 .38 570 564 555 543 528 510	.40 .39 .38 .37 .36 .35 524 518 509 496 481 463	.36 .36 .35 .34 .33 .31 477 471 462 449 433 415	.33 .31 .29 .26 .24 .21 436 411 382 351 317 281	.29 .27 .25 .23 .20 .17 388 362 333 301 267 230									
30	.43 .45 .46 .48 .49 .50 580 601 620 638 654 668	.51 .52 .53 .53 .53 .53 682 691 699 704 706 706	.53 .53 .52 .51 .50 .49 703 698 690 679 665 648	.50 .49 .48 .47 .45 660 654 646 635 620 603	.47 .46 .45 .44 .43 .42 615 610 601 589 575 557	.43 .43 .42 .41 .40 .38 570 564 555 543 528 510	.40 .39 .38 .37 .36 .35 524 518 509 496 481 463	.36 .36 .35 .34 .33 .31 477 471 462 449 433 415	.33 .31 .29 .26 .24 .21 436 411 382 351 317 281	.29 .27 .25 .23 .20 .17 388 362 333 301 267 230										
45	.40 .41 .43 .44 .46 .47 533 555 574 592 609 623	.48 .49 .49 .50 .50 .50 637 647 655 660 662 662	.50 .49 .48 .47 .45 660 654 646 635 620 603	.47 .46 .45 .44 .43 .42 615 610 601 589 575 557	.43 .43 .42 .41 .40 .38 570 564 555 543 528 510	.40 .39 .38 .37 .36 .35 524 518 509 496 481 463	.36 .36 .35 .34 .33 .31 477 471 462 449 433 415	.33 .31 .29 .26 .24 .21 436 411 382 351 317 281	.29 .27 .25 .23 .20 .17 388 362 333 301 267 230											
1700	.36 .38 .39 .41 .42 .43 485 507 527 546 562 577	.45 .45 .46 .46 .47 .47 592 602 610 615 618 618	.47 .46 .45 .44 .43 .42 615 610 601 589 575 557	.43 .43 .42 .41 .40 .38 570 564 555 543 528 510	.40 .39 .38 .37 .36 .35 524 518 509 496 481 463	.36 .36 .35 .34 .33 .31 477 471 462 449 433 415	.33 .31 .29 .26 .24 .21 436 411 382 351 317 281	.29 .27 .25 .23 .20 .17 388 362 333 301 267 230												
15	.33 .34 .36 .37 .39 .40 437 459 480 499 516 531	.41 .42 .43 .43 .43 .43 546 556 564 570 572 572	.43 .43 .42 .41 .40 .38 570 564 555 543 528 510	.40 .39 .38 .37 .36 .35 524 518 509 496 481 463	.36 .36 .35 .34 .33 .31 477 471 462 449 433 415	.33 .31 .29 .26 .24 .21 436 411 382 351 317 281	.29 .27 .25 .23 .20 .17 388 362 333 301 267 230													
30	.29 .31 .32 .34 .35 .36 388 410 431 451 468 484	.38 .38 .39 .40 .40 .40 499 510 518 524 526 526	.40 .39 .38 .37 .36 .35 524 518 509 496 481 463	.36 .36 .35 .34 .33 .31 477 471 462 449 433 415	.33 .31 .29 .26 .24 .21 436 411 382 351 317 281	.29 .27 .25 .23 .20 .17 388 362 333 301 267 230														
45	.25 .27 .29 .30 .32 .33 338 361 383 402 420 436	.34 .35 .36 .36 .36 .36 452 463 471 477 480 480	.36 .36 .35 .34 .33 .31 477 471 462 449 433 415	.33 .31 .29 .26 .24 .21 436 411 382 351 317 281	.29 .27 .25 .23 .20 .17 388 362 333 301 267 230															

MAY-AUG 54 N TABLE B-1 SOLAR PARAMETERS COS. Z *** SIGNIFIES COS Z = 1.
 ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					JUL					AUG									
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30							
800	.21	.23	.25	.27	.28	.29	.31	.31	.32	.33	.33	.33	.33	.32	.31	.30	.29	.28	.26	.23	.21	.19	.16	.13	
	288	312	334	354	372	389	405	416	425	430	433	433	430	424	414	402	386	366	339	313	283	251	216	179	
15	.18	.20	.21	.23	.24	.26	.27	.28	.29	.29	.29	.29	.29	.28	.28	.27	.25	.24	.22	.20	.18	.15	.12	.10	
	238	263	285	306	324	341	356	369	378	384	386	386	383	377	367	354	338	318	290	263	233	201	166	128	
30	.14	.16	.18	.19	.21	.22	.23	.24	.25	.25	.26	.26	.26	.25	.25	.24	.23	.22	.20	.18	.16	.14	.11	.09	.06
	189	214	237	258	277	294	311	322	331	337	340	340	336	330	320	306	290	270	241	214	184	151	115	077	
45	.10	.12	.14	.16	.17	.19	.20	.21	.22	.22	.22	.22	.22	.22	.21	.21	.20	.18	.17	.15	.12	.10	.08	.05	.02
	140	165	189	210	230	247	264	276	285	291	294	293	290	283	273	259	242	222	193	165	135	101	065	027	
1900	.07	.09	.11	.12	.14	.15	.16	.17	.18	.19	.19	.19	.19	.18	.18	.17	.16	.15	.13	.11	.09	.06	.04	.01	.00
	092	117	141	163	183	201	218	230	239	245	248	248	244	237	226	212	195	174	145	117	086	052	016	000	
15	.03	.05	.07	.09	.10	.12	.13	.14	.15	.15	.15	.15	.15	.15	.15	.14	.13	.11	.10	.07	.05	.03	.00	.00	.00
	044	070	095	117	137	155	173	185	194	200	203	203	199	192	181	166	149	128	098	069	038	004	000	000	
30	.00	.02	.04	.05	.07	.08	.10	.11	.11	.12	.12	.12	.12	.12	.11	.10	.09	.08	.06	.04	.02	.00	.00	.00	.00
	000	025	049	072	093	111	129	141	150	156	159	159	155	147	136	121	103	082	051	023	000	000	000	000	
45	.00	.00	.00	.02	.04	.05	.07	.07	.08	.09	.09	.09	.09	.08	.08	.07	.06	.04	.03	.01	.00	.00	.00	.00	.00
	000	000	005	028	049	068	086	098	108	114	116	116	112	104	092	077	059	037	006	000	000	000	000	000	
2000	.00	.00	.00	.00	.01	.02	.03	.04	.05	.06	.06	.06	.06	.05	.05	.04	.03	.01	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	007	026	045	057	066	072	075	074	070	062	050	035	016	000	000	000	000	000	000	000	
15	.00	.00	.00	.00	.00	.00	.00	.01	.02	.03	.03	.03	.03	.02	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	005	017	027	033	035	034	023	021	009	000	000	000	000	000	000	000	000	000	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	

*** SIGNIFIES COS Z =1.
ADD 1000 TO VALUES PRECEDED BY *

TABLE B-1 SOLAR PARAMETERS COS Z
XO (W/M**2.)

MAY-AUG 54 N

MST

DATE

	SEP					OCT					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30		
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
30	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
45	.07	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
0600	.10	.08	.06	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
15	.14	.12	.10	.08	.05	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
30	.18	.16	.14	.12	.09	.07	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
45	.22	.20	.18	.15	.13	.11	.08	.06	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00		
0700	.26	.23	.21	.19	.17	.14	.12	.10	.07	.05	.02	.00	.00	.00	.00	.00	.00	.00		
15	.29	.27	.25	.23	.20	.18	.16	.13	.11	.08	.06	.03	.01	.00	.00	.00	.00	.00		
30	.33	.31	.28	.26	.24	.22	.20	.17	.14	.12	.09	.07	.05	.03	.01	.00	.00	.00		
45	.36	.34	.32	.30	.27	.25	.23	.20	.18	.15	.13	.10	.07	.05	.03	.01	.00	.00		

SEP-DEC 54 N TABLE B-1 SOLAR PARAMETERS COS Z
X0 (W/M*2.)

*** SIGNIFIES COS Z =1.
ADD 1000 TO VALUES PRECEDED BY *

NST	DATE																							
	SEP				OCT				NOV				DEC											
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30						
0800	.40	.37	.35	.33	.31	.28	.26	.23	.21	.18	.16	.13	.10	.08	.06	.04	.02	.00	.00	.00	.00	.00	.00	.00
	533	506	478	448	417	386	353	320	286	252	217	183	143	111	080	050	023	000	000	000	000	000	000	
	15	.43	.41	.38	.36	.34	.31	.29	.26	.24	.21	.19	.16	.13	.11	.09	.07	.05	.03	.01	.00	.00	.00	.00
30	577	550	521	492	461	429	396	363	329	294	260	225	185	152	121	092	065	040	019	000	000	000	000	000
	30	.46	.44	.42	.39	.37	.34	.32	.29	.27	.24	.22	.19	.16	.14	.12	.09	.07	.06	.04	.03	.02	.01	.01
	45	618	591	563	533	502	470	437	404	369	335	300	265	225	192	161	131	104	080	058	040	025	016	009
45	658	631	602	573	542	509	476	442	408	373	338	303	262	229	198	169	141	117	096	078	064	054	048	046
	0900	.52	.49	.47	.45	.42	.40	.37	.35	.32	.30	.27	.24	.21	.19	.17	.15	.13	.11	.09	.08	.07	.06	.06
	15	695	668	640	610	578	546	513	479	444	409	373	338	297	264	233	204	176	152	131	113	100	090	084
15	730	703	674	644	613	580	547	512	477	442	406	371	330	297	265	236	209	185	164	147	133	124	119	118
	30	.54	.52	.50	.47	.45	.42	.40	.37	.35	.32	.29	.27	.24	.21	.19	.17	.15	.13	.12	.10	.09	.09	.08
	45	763	735	706	676	644	612	578	543	508	472	437	401	360	327	295	266	239	215	194	177	164	155	150
45	792	765	736	705	673	640	606	571	536	500	464	428	387	354	322	293	266	242	222	205	192	184	179	180
	1000	.61	.59	.56	.54	.51	.49	.46	.43	.41	.38	.35	.33	.30	.27	.25	.23	.21	.19	.18	.16	.15	.15	.15
	15	819	792	762	732	699	666	632	596	560	524	488	453	411	378	346	317	291	267	247	230	218	210	206
15	843	.63	.60	.58	.56	.53	.50	.48	.45	.42	.40	.37	.34	.31	.29	.26	.24	.22	.21	.19	.18	.17	.17	.16
	30	884	856	826	795	762	728	693	657	621	585	549	513	477	441	405	369	333	307	288	272	260	253	250
	45	922	894	864	832	799	764	882	854	824	792	759	724	688	653	616	579	543	507	303	288	277	270	268

SEP-DEC 54 N TABLE 8-1 SOLAR PARAMETERS COS Z *** SIGNIFIES COS Z = 1.
 X0 (W/M*2.) ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					NOV					DEC								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1100	.67	.64	.62	.59	.57	.54	.51	.48	.46	.43	.40	.37	.34	.32	.29	.27	.25	.24	.22	.21	.21	.20	.20	.20
	897	868	838	806	772	737	702	665	628	591	554	518	476	443	412	383	358	335	316	301	290	284	282	285
15	.67	.65	.63	.60	.57	.55	.52	.49	.46	.43	.41	.38	.35	.32	.30	.28	.26	.24	.23	.22	.21	.21	.21	.21
	908	879	848	816	782	747	711	674	637	600	563	526	484	451	420	392	366	344	326	311	301	295	294	297
30	.68	.66	.63	.61	.58	.55	.52	.49	.47	.44	.41	.38	.35	.33	.30	.28	.27	.25	.24	.23	.22	.21	.21	.22
	916	887	856	823	789	753	717	680	642	605	567	531	489	456	425	397	372	350	332	318	308	303	302	305
45	.68	.66	.63	.61	.58	.55	.52	.50	.47	.44	.41	.38	.35	.33	.31	.28	.27	.25	.24	.23	.22	.22	.22	.22
	921	891	860	826	792	756	719	682	644	606	569	533	491	458	427	399	374	353	335	321	312	307	307	311
1200	.68	.66	.63	.61	.58	.55	.52	.50	.47	.44	.41	.38	.35	.33	.30	.28	.27	.25	.24	.23	.22	.22	.22	.22
	922	892	860	827	791	755	718	680	642	604	567	531	489	456	425	398	373	352	335	321	313	308	308	313
15	.68	.66	.63	.61	.58	.55	.52	.49	.46	.43	.41	.38	.35	.32	.30	.28	.26	.25	.24	.23	.22	.22	.22	.22
	921	890	857	823	788	751	714	675	637	599	562	525	483	451	420	393	369	348	331	318	310	306	307	312
30	.68	.65	.63	.60	.57	.54	.52	.49	.46	.43	.40	.37	.34	.32	.29	.27	.26	.24	.23	.22	.22	.21	.21	.22
	915	884	851	817	781	744	706	667	629	590	553	516	475	442	412	385	361	341	324	312	304	301	302	307
45	.67	.65	.62	.59	.57	.54	.51	.48	.45	.42	.39	.36	.33	.31	.29	.27	.25	.23	.22	.21	.21	.21	.21	.21
	906	875	842	807	770	733	694	656	617	578	541	504	463	430	400	374	350	330	314	302	295	292	294	300
1300	.66	.64	.61	.58	.56	.53	.50	.47	.44	.41	.38	.35	.32	.30	.28	.26	.24	.23	.21	.21	.20	.20	.20	.20
	895	862	829	793	756	718	680	641	602	563	525	489	447	415	386	359	336	316	301	290	283	280	282	289
15	.65	.63	.60	.57	.54	.51	.48	.45	.42	.39	.37	.34	.31	.28	.26	.24	.23	.21	.20	.19	.19	.19	.19	.19
	879	847	812	776	739	701	662	623	583	545	507	470	429	397	368	341	319	299	284	274	267	265	268	275
30	.64	.61	.59	.56	.53	.50	.47	.44	.41	.38	.35	.32	.29	.27	.25	.23	.21	.20	.19	.19	.18	.18	.18	.18
	861	828	793	757	719	680	641	601	562	523	485	449	407	376	346	321	298	280	265	255	249	247	250	258
45	.62	.60	.57	.54	.51	.48	.45	.42	.39	.36	.33	.31	.27	.25	.23	.21	.20	.18	.17	.17	.16	.16	.16	.17
	839	806	770	734	695	656	617	577	537	498	460	424	383	351	322	297	275	257	242	233	227	226	230	238

SEP-DEC 54 N TABLE B-1 SOLAR PARAMETERS COS Z ** SIGNIFIES COS Z = 1.
 X0 (W/M=2.) ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					DATE					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1400	.60	.58	.55	.52	.49	.46	.43	.40	.37	.34	.31	.29	.26	.23	.21	.19	.18	.16	.15	.15	.14	.14	.15	.15	
	815	781	745	708	669	629	589	549	509	470	432	396	355	324	295	270	249	231	217	208	203	202	206	214	
15	.58	.56	.53	.50	.47	.44	.41	.38	.35	.32	.29	.26	.23	.21	.19	.17	.16	.14	.13	.13	.12	.12	.13	.13	
	787	753	717	679	640	600	559	519	479	440	402	358	325	294	265	241	220	202	189	180	175	175	180	188	
30	.56	.53	.51	.48	.45	.42	.38	.35	.32	.29	.27	.24	.21	.19	.17	.15	.13	.12	.11	.11	.10	.10	.11	.11	
	757	722	685	647	607	567	527	486	446	406	363	332	292	261	233	209	188	171	158	150	145	146	151	160	
45	.54	.51	.48	.45	.42	.39	.36	.33	.30	.27	.24	.21	.18	.16	.14	.12	.11	.10	.09	.09	.08	.08	.08	.09	
	724	689	651	613	573	532	491	450	410	371	333	297	255	226	198	174	154	137	125	117	113	114	119	128	
1500	.51	.48	.45	.42	.39	.35	.33	.30	.27	.24	.21	.19	.16	.14	.12	.10	.08	.07	.06	.05	.05	.06	.06	.07	
	689	653	615	576	535	494	453	412	372	332	294	258	218	188	161	137	117	101	089	081	078	079	085	095	
15	.48	.46	.43	.40	.36	.33	.30	.27	.24	.21	.18	.16	.13	.11	.09	.07	.06	.04	.04	.03	.03	.03	.03	.04	
	651	615	576	537	496	454	413	372	331	292	254	218	178	148	121	098	078	063	051	044	041	043	048	058	
30	.45	.43	.40	.36	.33	.30	.27	.24	.21	.18	.15	.13	.10	.08	.06	.04	.03	.02	.01	.00	.00	.00	.01	.01	
	611	574	535	495	454	412	371	329	288	249	211	176	136	106	080	057	037	022	011	004	002	004	010	020	
45	.42	.39	.36	.33	.30	.27	.24	.21	.18	.15	.12	.09	.07	.05	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	
	569	532	492	452	410	368	326	285	244	204	167	131	092	062	036	014	000	000	000	000	000	000	000	000	
1600	.39	.36	.33	.30	.27	.24	.20	.17	.14	.11	.09	.06	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	525	487	448	407	365	322	280	238	198	158	121	085	045	017	000	000	000	000	000	000	000	000	000	000	
15	.36	.33	.30	.27	.23	.20	.17	.14	.11	.08	.05	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	480	441	401	360	318	275	233	191	150	110	073	038	000	000	000	000	000	000	000	000	000	000	000	000	
30	.32	.29	.26	.23	.20	.17	.13	.10	.07	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	433	394	353	311	269	226	184	142	101	061	024	000	000	000	000	000	000	000	000	000	000	000	000	000	
45	.29	.26	.22	.19	.16	.13	.10	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	385	345	304	262	219	176	134	091	051	011	000	000	000	000	000	000	000	000	000	000	000	000	000	000	

SEP-DEC 54 N TABLE B-1 SOLAR PARAMETERS COS Z *** SIGNIFIES COS Z =1.
X0 (W/M**2.) ADD 1000 TO VALUES PRECEDED BY *

MST	DATE																		
	SEP					OCT					NOV					DEC			
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1700	.25	.22	.19	.16	.12	.09	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	335	295	254	212	169	125	082	040	000	000	000	000	000	000	000	000	000	000	000
15	.21	.18	.15	.12	.09	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	285	245	203	160	117	074	031	000	000	000	000	000	000	000	000	000	000	000	000
30	.17	.14	.11	.08	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	234	194	152	109	065	022	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.14	.11	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	183	142	100	056	013	000	000	000	000	000	000	000	000	000	000	000	000	000	000
1800	.10	.07	.04	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	132	090	048	004	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	080	038	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	029	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000

*** SIGNIFIES COS Z =1.
ADD 1000 TO VALUES PRECEDED BY *

SOLAR PARAMETERS
XC (W/M**2.)

TABLE B-1

54 N

SEP-DEC

MST	DATE																																							
	JAN				FEB				MAR				APR																											
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30																					
1000	.18	.18	.19	.20	.21	.23	.25	.27	.30	.32	.35	.38	.43	.46	.49	.52	.54	.57	.61	.63	.65	.68	.70	.72	.74	.76	.78	.80	.82	.84	.86	.88	.90	.92	.94	.96	.98	1.00		
	.251	.256	.267	.281	.300	.323	.349	.385	.418	.453	.490	.528	.592	.632	.672	.711	.749	.786	.828	.861	.891	.919	.945	.968																
	.277	.282	.293	.308	.328	.351	.377	.413	.446	.482	.519	.557	.620	.660	.700	.739	.777	.813	.854	.887	.917	.944	.969	.992																
15	.20	.20	.21	.22	.23	.25	.27	.29	.32	.34	.37	.40	.45	.48	.51	.54	.56	.59	.62	.65	.67	.70	.72	.74																
	.277	.282	.293	.308	.328	.351	.377	.413	.446	.482	.519	.557	.620	.660	.700	.739	.777	.813	.854	.887	.917	.944	.969	.992																
	.30	.305	.316	.332	.352	.375	.402	.439	.472	.507	.545	.593	.646	.686	.725	.764	.801	.837	.878	.904	.939	.966	.991	.013																
30	.21	.22	.22	.24	.25	.27	.29	.31	.34	.36	.39	.42	.46	.49	.52	.55	.58	.61	.64	.67	.69	.71	.73	.75																
	.299	.305	.316	.332	.352	.375	.402	.439	.472	.507	.545	.593	.646	.686	.725	.764	.801	.837	.878	.904	.939	.966	.991	.013																
	.45	.453	.464	.480	.500	.523	.549	.584	.619	.654	.689	.724	.759	.794	.829	.864	.899	.934	.969	.994	1.000	1.000	1.000	1.000																
45	.23	.23	.24	.25	.26	.28	.30	.33	.35	.38	.41	.43	.46	.49	.52	.55	.58	.61	.64	.67	.69	.71	.73	.75																
	.318	.325	.337	.353	.373	.397	.424	.461	.494	.530	.567	.606	.646	.686	.725	.764	.801	.837	.878	.904	.939	.966	.991	.013																
	.45	.453	.464	.480	.500	.523	.549	.584	.619	.654	.689	.724	.759	.794	.829	.864	.899	.934	.969	.994	1.000	1.000	1.000	1.000																
1100	.24	.24	.25	.26	.28	.29	.31	.34	.37	.39	.42	.45	.49	.52	.55	.58	.61	.64	.67	.69	.71	.73	.75	.77	.78															
	.334	.341	.353	.370	.391	.415	.443	.480	.514	.549	.587	.625	.667	.706	.745	.784	.823	.862	.901	.940	.979	1.000	1.000	1.000																
	.45	.453	.464	.480	.500	.523	.549	.584	.619	.654	.689	.724	.759	.794	.829	.864	.899	.934	.969	.994	1.000	1.000	1.000	1.000																
15	.25	.25	.26	.27	.29	.31	.33	.35	.38	.40	.43	.46	.49	.52	.55	.58	.61	.64	.67	.69	.71	.73	.75	.77	.78															
	.347	.354	.367	.384	.405	.430	.458	.496	.529	.565	.602	.641	.681	.720	.759	.798	.837	.876	.915	.954	.993	1.000	1.000	1.000																
	.45	.453	.464	.480	.500	.523	.549	.584	.619	.654	.689	.724	.759	.794	.829	.864	.899	.934	.969	.994	1.000	1.000	1.000	1.000																
30	.25	.26	.27	.28	.30	.31	.33	.36	.39	.41	.44	.47	.51	.54	.57	.60	.63	.65	.69	.71	.73	.75	.77	.79																
	.356	.364	.377	.395	.417	.442	.470	.508	.542	.577	.615	.653	.691	.729	.767	.805	.843	.881	.919	.957	.995	1.000	1.000	1.000																
	.45	.453	.464	.480	.500	.523	.549	.584	.619	.654	.689	.724	.759	.794	.829	.864	.899	.934	.969	.994	1.000	1.000	1.000	1.000																
45	.26	.26	.27	.28	.30	.32	.34	.37	.39	.42	.45	.47	.52	.55	.58	.61	.63	.66	.69	.71	.74	.76	.78	.79																
	.362	.370	.384	.402	.424	.450	.478	.516	.550	.586	.623	.662	.700	.738	.776	.814	.852	.890	.928	.966	.994	1.000	1.000	1.000																
	.45	.453	.464	.480	.500	.523	.549	.584	.619	.654	.689	.724	.759	.794	.829	.864	.899	.934	.969	.994	1.000	1.000	1.000	1.000																
1200	.26	.26	.27	.29	.30	.32	.34	.37	.40	.42	.45	.48	.52	.55	.58	.61	.64	.66	.69	.71	.74	.76	.78	.79																
	.364	.373	.388	.406	.428	.454	.483	.521	.556	.591	.629	.667	.705	.743	.781	.819	.857	.895	.933	.971	.999	1.000	1.000	1.000																
	.45	.453	.464	.480	.500	.523	.549	.584	.619	.654	.689	.724	.759	.794	.829	.864	.899	.934	.969	.994	1.000	1.000	1.000	1.000																
15	.26	.26	.27	.29	.30	.32	.34	.37	.40	.42	.45	.48	.52	.55	.58	.61	.64	.66	.69	.71	.74	.76	.77	.79																
	.364	.372	.387	.406	.429	.455	.484	.523	.557	.593	.630	.668	.706	.744	.782	.820	.858	.896	.934	.972	.999	1.000	1.000	1.000																
	.45	.453	.464	.480	.500	.523	.549	.584	.619	.654	.689	.724	.759	.794	.829	.864	.899	.934	.969	.994	1.000	1.000	1.000	1.000																
30	.25	.26	.27	.29	.30	.32	.34	.37	.40	.42	.45	.48	.52	.55	.58	.61	.63	.66	.69	.71	.73	.75	.77	.79																
	.359	.368	.384	.403	.426	.453	.482	.521	.555	.591	.629	.667	.705	.743	.781	.819	.857	.895	.933	.971	.999	1.000	1.000	1.000																
	.45	.453	.464	.480	.500	.523	.549	.584	.619	.654	.689	.724	.759	.794	.829	.864	.899	.934	.969	.994	1.000	1.000	1.000	1.000																
45	.25	.26	.27	.28	.30	.32	.34	.37	.39	.42	.45	.47	.52	.55	.57	.60	.63	.65	.68	.70	.73	.75	.76	.78																
	.351	.361	.377	.397	.420	.447	.476	.515	.550	.586	.623	.660	.700	.738	.776	.814	.852	.890	.928	.966	.994	1.000	1.000	1.000																
	.45	.453	.464	.480	.500	.523	.549	.584	.619	.654	.689	.724	.759	.794	.829	.864	.899	.934	.969	.994	1.000	1.000	1.000	1.000																

TABLE 8-1 SOLAR PARAMETERS COS Z (W/R**2.) SIGNIFIES COS Z = 1.
 100 1000 TO VALUES PRECEDED BY .

MST	DATE																		
	JAN				FEB				MAR				APR						
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1300	.24	.25	.26	.27	.29	.31	.33	.36	.39	.41	.44	.47		.51	.54	.57	.59	.62	.64
	340	350	367	387	410	437	467	506	541	576	613	651		710	747	783	818	852	884
15	.23	.24	.25	.26	.28	.30	.32	.35	.38	.40	.43	.46		.50	.53	.56	.58	.61	.63
	326	336	353	373	397	425	455	493	528	564	601	639		697	734	769	804	837	869
30	.22	.23	.24	.25	.27	.29	.31	.34	.36	.39	.42	.45		.48	.52	.54	.57	.60	.62
	308	319	336	357	381	408	438	477	512	548	584	621		680	717	752	786	819	850
45	.20	.21	.22	.24	.26	.28	.30	.33	.35	.38	.40	.43		.47	.50	.53	.55	.58	.60
	287	298	315	337	361	389	419	458	492	528	565	601		660	696	731	765	798	829
1400	.19	.19	.21	.22	.24	.26	.28	.31	.33	.36	.39	.41		.46	.49	.51	.54	.56	.59
	263	274	292	313	338	366	396	435	470	505	541	578		636	672	707	740	773	804
15	.17	.18	.19	.20	.22	.24	.26	.29	.32	.34	.37	.40		.44	.46	.49	.52	.54	.57
	236	248	266	287	312	340	370	409	444	479	515	552		609	645	679	713	745	776
30	.15	.15	.17	.18	.20	.22	.24	.27	.30	.32	.35	.37		.42	.44	.47	.49	.52	.54
	206	218	236	258	283	311	341	380	415	450	486	522		579	615	649	682	714	744
45	.12	.13	.14	.16	.18	.20	.22	.25	.27	.30	.32	.35		.38	.42	.44	.47	.49	.52
	173	185	204	226	251	279	309	348	383	418	453	489		546	581	615	648	680	710
1500	.10	.11	.12	.14	.15	.17	.20	.22	.25	.27	.30	.33		.37	.39	.42	.44	.47	.49
	138	150	169	191	216	244	275	314	348	383	418	454		510	545	579	612	643	673
15	.07	.08	.09	.11	.13	.15	.17	.20	.22	.25	.27	.30		.34	.37	.39	.42	.44	.46
	100	113	132	154	179	207	238	276	310	345	380	416		472	506	540	572	604	634
30	.04	.05	.07	.08	.10	.12	.14	.17	.19	.22	.24	.27		.31	.34	.36	.38	.41	.43
	060	073	092	114	140	168	198	236	270	304	340	375		431	465	498	531	562	592
45	.01	.02	.04	.05	.07	.09	.11	.14	.16	.19	.21	.24		.28	.30	.33	.35	.38	.40
	018	031	050	072	098	126	156	194	227	262	297	332		387	421	454	487	518	548

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

SOLAR PARAMETERS
XO (W/M**2.)

TABLE 8-1

52 N

JAN-APR

MST	DATE												APR												
	JAN						FEB						MAR						APR						
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1600	.00	.00	.00	.02	.04	.06	.08	.11	.13	.16	.18	.21	.25	.27	.30	.32	.34	.37	.39	.41	.43	.45	.47	.49	
	000	000	000	008	028	054	081	111	150	183	217	252	286	341	375	408	440	471	501	536	563	593	614	637	659
15	.00	.00	.00	.00	.01	.03	.05	.07	.10	.12	.15	.17	.21	.24	.26	.28	.31	.33	.36	.38	.40	.42	.44	.45	
	000	000	000	000	008	035	065	103	136	170	204	239	294	327	360	392	423	453	488	515	541	566	590	612	
30	.00	.00	.00	.00	.00	.00	.01	.04	.06	.09	.11	.14	.18	.20	.22	.25	.27	.29	.32	.34	.35	.38	.40	.42	
	000	000	000	000	000	000	017	055	088	121	155	190	244	278	310	342	373	403	438	463	492	517	541	564	
45	.00	.00	.00	.00	.00	.00	.00	.00	.03	.05	.08	.10	.14	.16	.19	.21	.23	.26	.28	.30	.33	.34	.36	.38	
	000	000	000	000	000	000	000	000	038	071	105	139	193	226	259	291	322	352	387	415	442	467	492	515	
1700	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.04	.06	.10	.13	.15	.17	.20	.22	.25	.27	.29	.31	.33	.34	
	000	000	000	000	000	000	000	000	000	020	053	087	141	174	207	238	269	300	335	363	390	416	441	464	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.06	.09	.11	.13	.16	.18	.21	.23	.25	.27	.29	.31	
	000	000	000	000	000	000	000	000	000	000	000	034	087	120	153	185	216	246	281	310	337	363	389	413	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.05	.07	.09	.12	.14	.17	.19	.21	.23	.25	.27	
	000	000	000	000	000	000	000	000	000	000	000	000	033	066	098	130	161	192	227	255	284	311	336	361	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.03	.05	.08	.10	.13	.15	.17	.19	.21	.23	
	000	000	000	000	000	000	000	000	000	000	000	000	000	011	043	075	106	137	173	202	230	257	283	308	
1800	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.04	.06	.09	.11	.13	.15	.17	.19	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	020	051	082	118	147	175	204	230	256	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.05	.07	.09	.11	.13	.15	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	027	063	093	122	150	177	203	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.03	.05	.07	.09	.11	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	009	033	058	087	124	151	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.03	.05	.07	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	015	044	072	099	

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

SOLAR PARAMETERS COS Z
AO (W/M**2.)

TABLE B-1

JAN-APR 52 N

MST	DATE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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	1	5	10	15	20	25	30	1	5	10	15	20	25	30	1	5	10	15	20	25	30																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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JAN-APR 52 N TABLE 8-1 SOLAR PARAMETERS COS Z *** SIGNIFIES COS Z ≈ 1 .
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TABLE B-1 SOLAR PARAMETERS COS Z
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 ADD 1000 TO VALUES PRECEDED BY .

MST	MAY					JUN					JUL					AUG								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30						
0700	.38	.40	.41	.43	.44	.45	.45	.46	.46	.46	.45	.45	.44	.43	.43	.41	.40	.39	.37	.33	.34	.32	.30	.28
	510	533	552	569	582	593	601	605	606	605	601	595	58	576	563	549	533	516	493	472	451	429	405	381
15	.42	.43	.45	.46	.47	.48	.49	.49	.49	.49	.49	.49	.47	.46	.45	.45	.44	.43	.41	.39	.39	.36	.34	.32
	560	582	601	617	630	640	649	652	653	652	649	642	631	623	611	597	582	565	542	523	502	479	456	432
30	.45	.47	.48	.50	.51	.52	.52	.53	.53	.53	.53	.52	.51	.51	.50	.49	.47	.46	.44	.43	.41	.40	.38	.36
	608	630	649	664	677	687	695	698	699	698	694	688	680	670	658	644	629	613	591	571	551	529	506	482
45	.49	.50	.52	.53	.54	.55	.56	.56	.56	.56	.55	.55	.54	.53	.52	.51	.50	.48	.46	.45	.43	.41	.40	.40
	655	677	695	710	723	732	740	743	744	743	739	733	725	715	704	690	676	659	638	613	593	577	555	531
0800	.52	.54	.55	.56	.58	.58	.59	.59	.59	.59	.59	.59	.58	.57	.56	.55	.54	.53	.51	.50	.48	.47	.45	.43
	701	722	740	755	767	776	783	787	787	786	782	777	761	753	746	735	721	705	684	663	645	624	602	578
15	.55	.57	.58	.60	.61	.61	.62	.62	.63	.63	.62	.62	.61	.61	.60	.59	.58	.56	.55	.53	.52	.50	.48	.46
	745	765	783	797	809	818	825	828	829	828	822	819	811	802	791	778	764	748	728	710	690	669	647	624
30	.58	.60	.62	.63	.64	.64	.65	.65	.66	.66	.65	.65	.64	.63	.63	.62	.61	.60	.58	.56	.55	.53	.52	.50
	787	807	824	838	849	858	865	868	869	868	864	859	852	842	832	819	806	790	770	752	733	712	690	667
45	.61	.63	.64	.66	.67	.67	.68	.68	.68	.68	.68	.68	.67	.67	.66	.65	.64	.63	.61	.60	.58	.56	.55	.53
	826	846	863	877	888	896	903	906	907	906	902	897	890	881	871	859	845	831	811	793	774	753	732	709
0900	.64	.66	.67	.68	.69	.70	.71	.71	.71	.71	.71	.71	.70	.69	.69	.68	.67	.65	.64	.62	.61	.59	.58	.56
	864	883	899	913	924	932	939	942	943	942	939	933	927	918	909	896	883	869	849	832	813	792	771	748
15	.67	.68	.70	.71	.72	.73	.73	.74	.74	.74	.73	.73	.72	.72	.71	.70	.69	.68	.67	.65	.64	.62	.60	.58
	899	918	934	947	958	966	973	976	977	975	972	967	961	953	943	931	918	904	885	863	849	829	807	784
30	.69	.71	.72	.73	.74	.75	.76	.76	.76	.76	.76	.76	.75	.74	.74	.73	.72	.71	.69	.68	.65	.65	.63	.61
	931	950	965	978	989	997	.004	.007	.008	.007	.004	.929	.993	.985	.975	.964	.951	.937	.919	.902	.883	.863	.841	.818
45	.71	.73	.74	.75	.76	.77	.78	.78	.78	.78	.78	.78	.77	.77	.76	.75	.74	.73	.71	.70	.68	.67	.65	.63
	961	979	994	.007	.018	.026	.032	.035	.036	.035	.033	.028	.022	.014	.005	.994	.982	.968	.950	.933	.914	.894	.873	.850

... SIGNIFIES COS 2 =1.
ADD 1000 TO VALUES PRECEDED BY *

TABLE B-1 SOLAR PARAMETERS COS 2
X0 (W/M**2.)

MAY-AUG 52 N

MST

DATE

MAY

JUN

JUL

AUG

	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1900	.06	.07	.09	.11	.12	.14	.15	.16	.17	.17	.17	.17	.17	.17	.16	.15	.13	.12
	074	099	122	144	164	181	199	210	219	226	229	228	225	218	208	195	178	157
15	.02	.04	.06	.07	.09	.10	.11	.12	.13	.14	.14	.14	.13	.13	.12	.11	.10	.08
	025	050	074	096	116	133	151	163	172	179	182	181	178	171	160	146	129	108
30	.00	.00	.02	.04	.05	.07	.09	.09	.10	.10	.10	.10	.10	.09	.09	.08	.06	.05
	000	002	026	049	069	087	105	117	126	133	136	135	131	124	113	099	081	050
45	.00	.00	.00	.00	.02	.03	.05	.06	.06	.07	.07	.07	.07	.06	.05	.04	.03	.01
	000	000	000	000	003	023	042	060	072	082	088	091	085	079	068	053	035	014
2000	.00	.00	.00	.00	.00	.00	.01	.02	.03	.03	.04	.04	.03	.03	.02	.01	.00	.00
	000	000	000	000	000	000	017	029	038	045	047	047	042	035	023	009	000	000
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	003	005	005	000	000	000	000	000	000
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000

MAY-AUG 52 N TABLE B-1 SOLAR PARAMETERS COS Z
X0 (W/M**2.)

*** SIGNIFIES COS Z =1.
ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					NOV					DEC								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
0800	.41	.39	.37	.34	.32	.30	.27	.25	.23	.20	.19	.15	.12	.10	.08	.06	.04	.02	.01	.00	.00	.00	.00	.00
	549	523	495	467	438	407	376	344	311	278	245	211	172	136	109	080	054	029	008	000	000	000	000	000
15	.44	.42	.40	.38	.36	.33	.31	.29	.26	.23	.21	.18	.16	.13	.11	.09	.07	.05	.04	.03	.01	.01	.00	.00
30	.47	.45	.43	.41	.39	.36	.34	.31	.29	.26	.24	.21	.19	.16	.14	.12	.10	.08	.07	.05	.04	.04	.03	.03
	638	612	585	556	527	496	464	432	399	365	331	297	257	225	194	165	138	114	093	076	056	050	043	041
45	.50	.48	.46	.44	.42	.39	.37	.34	.32	.29	.27	.24	.21	.19	.17	.15	.13	.11	.09	.03	.07	.06	.06	.05
0900	.53	.51	.49	.47	.45	.42	.40	.37	.35	.32	.29	.27	.24	.22	.19	.17	.15	.14	.12	.11	.10	.09	.09	.09
	718	692	665	636	607	575	543	510	476	442	408	374	334	301	270	241	214	190	169	151	137	128	122	120
15	.56	.54	.52	.50	.47	.45	.42	.40	.37	.35	.32	.29	.26	.24	.22	.20	.18	.16	.14	.13	.12	.12	.11	.11
30	.59	.56	.54	.52	.50	.47	.45	.42	.39	.37	.34	.32	.29	.26	.24	.22	.20	.18	.17	.15	.15	.14	.14	.13
	789	763	735	706	676	644	611	578	544	509	474	440	399	366	335	306	280	256	235	213	205	196	191	190
45	.61	.59	.57	.54	.52	.49	.47	.44	.42	.39	.36	.34	.31	.28	.26	.24	.22	.20	.19	.18	.17	.16	.16	.16
1000	.63	.61	.59	.56	.54	.51	.49	.46	.43	.41	.38	.36	.33	.30	.28	.26	.24	.22	.21	.19	.19	.18	.18	.18
	848	822	794	764	733	701	668	633	599	562	529	493	453	420	389	360	334	310	290	271	261	253	249	249
15	.65	.63	.60	.58	.56	.53	.50	.48	.45	.42	.40	.37	.34	.32	.29	.27	.25	.24	.22	.21	.20	.20	.19	.19
30	.67	.64	.62	.60	.57	.55	.52	.49	.47	.44	.41	.38	.35	.33	.31	.29	.27	.25	.24	.23	.22	.21	.21	.21
	935	868	840	810	778	745	711	676	641	603	570	534	493	461	430	401	375	352	333	317	306	298	295	297
45	.68	.66	.63	.61	.58	.56	.53	.50	.48	.45	.42	.40	.37	.34	.32	.30	.28	.26	.25	.24	.23	.22	.22	.22
	914	887	858	827	795	762	728	693	657	621	585	550	509	476	445	417	391	369	350	331	323	316	314	316

SEP-DEC 52 N TABLE B-1 SOLAR PARAMETERS CQS Z X0 (W/R=2.) *** SIGNIFIES CQS Z = 1. ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					NOV					DEC								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1100	.69	.67	.64	.62	.59	.57	.54	.51	.49	.46	.43	.40	.37	.35	.33	.31	.29	.27	.26	.25	.24	.23	.23	.23
	929	902	873	842	809	776	741	706	670	633	597	552	521	483	458	429	404	382	363	343	337	331	329	331
15	.70	.68	.65	.63	.60	.58	.55	.52	.49	.46	.44	.41	.38	.36	.33	.31	.29	.28	.26	.25	.25	.24	.24	.24
	941	913	884	852	820	786	751	715	679	642	606	571	521	497	466	438	413	391	373	354	348	342	341	344
30	.70	.68	.66	.63	.61	.58	.55	.52	.50	.47	.44	.41	.38	.36	.34	.32	.30	.28	.27	.25	.25	.25	.25	.25
	950	922	891	860	827	792	757	721	684	647	611	576	534	502	472	444	419	397	379	365	357	350	349	353
45	.71	.69	.66	.64	.61	.58	.55	.53	.50	.47	.44	.42	.38	.36	.34	.32	.30	.28	.27	.25	.25	.25	.25	.25
	955	926	896	864	830	795	759	723	686	649	613	577	536	504	473	446	421	400	383	369	359	355	355	359
1200	.71	.69	.66	.64	.61	.58	.55	.53	.50	.47	.44	.41	.38	.36	.34	.32	.30	.28	.27	.25	.25	.25	.25	.26
	956	927	896	854	830	794	758	721	684	647	611	575	534	502	472	444	420	399	382	369	350	356	356	361
15	.71	.68	.66	.63	.61	.58	.55	.52	.49	.46	.44	.41	.38	.36	.33	.31	.30	.28	.27	.25	.25	.25	.25	.25
	954	925	893	860	826	790	754	716	679	642	605	569	529	496	466	439	415	395	378	365	358	354	355	360
30	.70	.68	.65	.63	.60	.57	.54	.52	.49	.46	.43	.40	.37	.35	.33	.31	.29	.28	.26	.25	.25	.25	.25	.25
	949	919	887	853	818	782	745	708	670	633	596	560	519	487	456	431	407	387	371	359	352	348	349	355
45	.70	.67	.65	.62	.59	.56	.54	.51	.48	.45	.42	.39	.35	.34	.32	.30	.28	.27	.26	.25	.25	.24	.24	.25
	939	909	877	843	807	771	732	696	658	620	582	547	507	475	446	419	396	376	361	349	342	339	341	347
1300	.69	.66	.64	.61	.58	.55	.52	.50	.47	.44	.41	.38	.35	.33	.31	.29	.27	.26	.25	.25	.25	.23	.23	.24
	927	896	863	829	793	756	718	680	642	604	567	531	491	459	430	404	381	362	347	335	329	327	329	336
15	.68	.65	.62	.60	.57	.54	.51	.48	.45	.42	.40	.37	.34	.32	.29	.28	.26	.24	.23	.23	.22	.22	.22	.23
	911	879	846	811	775	738	699	661	623	585	548	512	471	440	411	385	363	344	330	319	313	311	314	321
30	.66	.64	.61	.59	.55	.52	.49	.46	.44	.41	.39	.35	.32	.30	.28	.26	.24	.23	.22	.21	.21	.21	.21	.21
	892	860	826	790	754	716	677	639	600	562	525	489	447	417	389	364	342	323	309	297	294	292	296	303
45	.65	.62	.59	.56	.54	.51	.49	.45	.42	.39	.36	.33	.30	.28	.26	.24	.23	.21	.20	.20	.19	.19	.19	.20
	869	837	802	766	729	691	652	613	574	536	499	463	423	392	364	339	317	299	286	275	271	270	274	282

TABLE B-1 SOLAR PARAMETERS COS Z
XO (W/1-2.)
... SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY .

MST	SEP					OCT					NOV					DEC								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1400	.63	.60	.57	.54	.51	.49	.46	.43	.40	.37	.34	.31	.29	.26	.24	.22	.21	.19	.18	.15	.17	.17	.18	.18
	844	810	776	739	701	663	624	584	545	507	470	434	394	363	335	311	290	272	259	253	245	245	249	258
15	.60	.58	.55	.52	.49	.46	.43	.40	.37	.34	.32	.29	.25	.24	.22	.20	.18	.17	.16	.15	.15	.15	.16	.16
	815	781	746	709	671	632	592	552	513	475	438	402	362	332	304	280	259	242	230	221	217	217	222	231
30	.58	.55	.53	.50	.47	.44	.41	.38	.35	.32	.29	.26	.24	.21	.19	.18	.16	.15	.14	.13	.13	.13	.14	.14
	783	749	713	676	637	598	558	518	478	440	403	367	325	297	270	246	226	210	197	189	185	186	191	200
45	.56	.53	.50	.47	.44	.41	.38	.35	.32	.29	.26	.24	.21	.19	.17	.15	.14	.12	.12	.11	.11	.11	.11	.12
	749	714	678	640	601	561	521	480	441	402	365	330	290	260	234	210	190	174	162	155	152	153	158	168
1500	.53	.50	.47	.44	.41	.38	.35	.32	.29	.26	.23	.21	.18	.16	.14	.12	.11	.10	.09	.09	.08	.08	.09	.09
	712	676	639	601	561	521	481	441	401	362	325	290	251	221	194	171	152	136	125	113	115	117	122	132
15	.50	.47	.44	.41	.38	.35	.32	.29	.26	.23	.20	.18	.15	.13	.11	.09	.08	.07	.06	.05	.05	.06	.06	.07
	672	636	599	560	520	479	439	398	358	320	283	248	209	179	153	130	111	096	085	079	075	078	084	094
30	.47	.44	.41	.38	.35	.32	.29	.26	.23	.20	.17	.15	.12	.10	.08	.06	.05	.04	.03	.03	.03	.03	.03	.04
	630	594	556	517	476	435	394	354	314	275	238	203	164	135	109	087	069	054	043	037	035	037	044	054
45	.44	.41	.38	.35	.32	.29	.25	.22	.19	.17	.14	.11	.09	.05	.05	.03	.02	.01	.00	.03	.03	.00	.00	.01
	586	549	511	471	430	389	348	307	267	228	191	157	116	089	064	042	024	010	000	003	000	000	001	012
1600	.40	.37	.34	.31	.28	.25	.22	.19	.16	.13	.10	.08	.05	.03	.01	.00	.00	.00	.00	.03	.00	.00	.00	.00
	540	503	464	424	383	341	300	259	219	180	143	108	070	042	017	000	000	000	000	003	000	000	000	000
15	.37	.34	.31	.28	.24	.21	.18	.15	.12	.09	.07	.04	.02	.00	.00	.00	.00	.00	.00	.03	.03	.00	.00	.00
	493	455	415	375	333	292	250	209	169	130	093	059	021	000	000	000	000	000	000	003	003	000	000	000
30	.33	.30	.27	.24	.21	.18	.15	.11	.09	.06	.03	.01	.00	.00	.00	.00	.00	.00	.00	.03	.03	.00	.00	.00
	443	405	365	324	282	240	199	157	117	079	042	008	000	000	000	000	000	000	000	003	000	000	000	000
45	.29	.26	.23	.20	.17	.14	.11	.08	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.03	.00	.00	.00
	393	354	314	272	230	188	146	105	065	026	000	000	000	000	000	000	000	000	000	003	000	000	000	000

SEP-DEC 52 N TABLE B-1 SOLAR PARAMETERS COS Z ** SIGNIFIES COS Z = 1.
 X0 (W/M**2.) ADD 1000 TO VALUES PRECEDED BY *

MST	DATE																							
	SEP					OCT					NOV					DEC								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1700	.25	.22	.19	.16	.13	.10	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	341	302	261	220	177	135	093	051	011	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.21	.18	.15	.12	.09	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	269	249	208	166	123	081	038	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.18	.14	.11	.08	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	235	195	154	112	069	026	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.14	.10	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	182	141	100	057	014	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
1800	.10	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	128	087	045	002	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.06	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	074	033	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	020	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000

*** SIGNIFIES COS Z = 1.
ADD 1.000 TO VALUES PRECEDED BY *

SOLAR PARAMETERS
X0 (W, W, *2.)

SEP-DEC S2 N

TABLE B-1

MST	DATE												APR											
	JAN			FEB			MAR			APR			MAY			JUN			JUL			AUG		
	1	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
0600	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
0700	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

JAN-APR 50 N TABLE B-1 SOLAR PARAMETERS COS Z SIGNIFIES COS Z = 1.
 ADD 1000 TO VALUES PRECEDED BY

PREVIOUS PAGE
 IS BLANK

MST

DATE

JAN

FEB

MAR

APR

MST	JAN					FEB					MAR					APR								
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30					
1100	.27	.27	.28	.29	.31	.33	.35	.37	.40	.42	.45	.48	.52	.55	.58	.61	.64	.66	.69	.72	.74	.76	.78	.80
380	387	399	416	436	460	487		523	556	591	626	665	726	765	802	839	874	908	947	975	004	029	052	072
15	.28	.28	.29	.30	.32	.34	.36	.38	.41	.43	.46	.49	.53	.56	.59	.62	.65	.67	.70	.73	.75	.77	.79	.80
393	401	413	430	451	475	503		540	573	608	644	682	743	781	818	854	889	923	960	990	017	042	064	084
30	.29	.29	.30	.31	.33	.35	.37	.39	.42	.44	.47	.50	.54	.57	.60	.63	.65	.68	.71	.73	.75	.77	.79	.81
403	411	424	441	463	487	515		552	586	621	657	695	755	793	830	866	900	932	971	999	025	050	073	092
45	.29	.30	.31	.32	.33	.35	.37	.40	.42	.45	.48	.50	.55	.58	.61	.63	.66	.69	.71	.74	.76	.78	.80	.81
409	417	431	449	471	496	524		561	595	630	666	704	764	801	838	873	908	940	977	005	032	056	078	097
1200	.29	.30	.31	.32	.34	.35	.38	.40	.43	.45	.48	.51	.55	.58	.61	.64	.66	.69	.72	.74	.76	.78	.80	.81
412	420	435	453	475	501	529		567	600	635	672	709	769	806	842	877	911	943	979	007	033	057	079	098
15	.29	.30	.31	.32	.34	.36	.38	.40	.43	.45	.48	.51	.55	.58	.61	.64	.66	.69	.72	.74	.76	.78	.80	.81
411	420	435	453	476	502	530		568	602	637	673	710	770	807	843	877	911	943	978	005	032	055	076	096
30	.29	.29	.31	.32	.34	.35	.37	.40	.43	.45	.48	.51	.55	.58	.61	.63	.66	.68	.71	.73	.75	.77	.79	.81
406	416	431	450	473	499	528		566	600	635	671	708	767	804	839	874	907	938	973	001	026	049	071	090
45	.28	.29	.30	.31	.33	.35	.37	.40	.42	.45	.48	.50	.55	.57	.60	.63	.65	.68	.71	.73	.75	.77	.78	.80
398	408	424	443	467	493	522		560	594	629	665	702	761	797	832	866	899	930	965	992	017	040	061	080
1300	.27	.28	.29	.31	.32	.34	.36	.39	.42	.44	.47	.50	.54	.57	.59	.62	.64	.67	.70	.72	.74	.76	.78	.79
387	397	413	433	456	483	512		551	585	620	656	692	751	786	821	855	887	918	953	979	004	027	048	067
15	.26	.27	.28	.30	.31	.33	.35	.38	.41	.43	.46	.49	.53	.56	.58	.61	.63	.66	.69	.71	.73	.75	.76	.78
372	382	399	419	443	470	499		537	571	607	642	679	737	772	807	840	872	902	937	963	988	010	031	050
30	.25	.26	.27	.28	.30	.32	.34	.37	.40	.42	.45	.47	.52	.54	.57	.60	.62	.64	.67	.69	.71	.73	.75	.76
353	364	381	401	425	453	482		521	555	590	625	662	719	754	788	822	853	883	917	945	968	990	011	030
45	.23	.24	.25	.27	.29	.31	.33	.36	.38	.41	.43	.46	.50	.53	.55	.58	.60	.63	.65	.68	.69	.71	.73	.75
331	342	360	381	405	432	462		500	534	569	605	641	699	733	767	799	831	861	894	920	945	967	988	007

SOLAR PARAMETERS
XO (W/M=2.)... SIGNIFIES COS 2 =1.
ADD 1000 TO VALUES PRECEDED BY .

MST	JAN										FEB					DATE					MAR					APR				
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30					
1400	.22	.22	.24	.25	.27	.29	.31	.34	.36	.39	.42	.44	.48	.51	.54	.56	.59	.61	.63	.63	.68	.69	.71	.73	.868	.891	.918	.941	.961	.980
	306	317	335	356	381	408	438	477	511	545	581	617	673	708	741	774	805	834												
	.20	.20	.22	.23	.25	.27	.29	.32	.34	.37	.40	.42	.45	.49	.52	.54	.56	.59	.61	.63	.65	.67	.69	.71	.838	.861	.893	.911	.932	.951
15	278	289	307	329	354	381	411	450	483	518	553	589	645	679	713	745	776	805												
30	.17	.18	.20	.21	.23	.25	.27	.30	.32	.35	.37	.40	.41	.47	.49	.52	.54	.56	.59	.61	.63	.65	.66	.68	.805	.831	.855	.878	.899	.918
	247	258	277	298	323	351	381	419	453	488	523	558	614	646	681	713	743	772												
	.15	.16	.17	.19	.21	.23	.25	.27	.30	.32	.35	.38	.42	.44	.47	.49	.51	.54	.56	.58	.60	.62	.64	.65	.770	.795	.820	.842	.863	.883
45	212	225	243	265	290	318	348	386	420	454	489	524	579	613	646	677	708	737												
1500	.12	.13	.15	.16	.18	.20	.22	.25	.27	.30	.32	.35	.39	.41	.44	.46	.49	.51	.53	.55	.57	.59	.61	.63	.731	.757	.781	.804	.825	.845
	176	188	207	229	254	282	311	350	383	417	452	487	542	575	608	639	669	698												
	.10	.11	.12	.13	.15	.17	.19	.22	.25	.27	.29	.32	.36	.39	.41	.43	.46	.48	.50	.52	.54	.56	.58	.60	.690	.715	.740	.763	.784	.804
15	136	149	168	190	215	243	273	311	344	378	412	447	501	535	567	598	628	657												
30	.07	.08	.09	.11	.12	.14	.16	.19	.22	.24	.26	.29	.26	.30	.32	.35	.37	.39	.41	.44	.46	.48	.50	.51	.53	.55	.56	.57	.59	.61
	094	107	126	148	174	201	231	269	302	336	370	404	458	491	524	555	585	613												
	.04	.05	.06	.07	.09	.11	.13	.16	.18	.21	.23	.26	.30	.32	.35	.37	.39	.41	.44	.46	.48	.50	.51	.53	.600	.623	.650	.674	.696	.716
45	050	063	082	105	130	157	187	225	258	291	325	359	413	446	478	509	539	567												
1600	.00	.01	.03	.04	.06	.08	.10	.13	.15	.17	.20	.22	.26	.29	.31	.33	.36	.38	.40	.42	.44	.46	.48	.50	.552	.573	.602	.626	.648	.669
	004	017	036	059	084	111	141	178	211	244	278	312	365	398	430	460	490	519												
	.00	.00	.00	.01	.03	.05	.07	.09	.12	.14	.16	.19	.23	.25	.27	.30	.32	.34	.37	.39	.41	.43	.44	.46	.501	.523	.553	.576	.599	.620
15	000	000	000	011	036	063	093	130	162	195	229	262	315	343	379	410	440	469												
30	.00	.00	.00	.00	.00	.01	.03	.06	.08	.10	.13	.15	.19	.21	.24	.26	.28	.30	.33	.35	.37	.39	.41	.42	.450	.475	.501	.525	.548	.570
	000	000	000	000	000	014	043	080	112	145	178	211	264	296	328	358	388	417												
	.00	.00	.00	.00	.00	.00	.00	.02	.04	.07	.09	.11	.15	.18	.20	.22	.24	.26	.29	.31	.33	.35	.37	.38	.396	.423	.448	.473	.496	.518
45	000	000	000	000	000	000	000	028	060	092	125	158	210	243	274	305	334	363												

JAN-APR 50 N TABLE B-1 SOLAR PARAMETERS COS Z *** SIGNIFIES COS Z = 1.
 XO (W/M**2.) ADD 1000 TO VALUES PRECEDED BY *

MST	MAY							JUN							JUL							AUG						
	DATE							DATE							DATE							DATE						
	5	10	15	20	25	30		5	10	15	20	25	30		5	10	15	20	25	30		5	10	15	20	25	30	
0400	.00	.00	.00	.00	.00	.00		.00	.00	.01	.01	.00	.00		.00	.00	.00	.00	.00	.00		.00	.00	.00	.00	.00	.00	
	000	000	000	000	000	000		000	006	009	009	006	000		000	000	000	000	000	000		000	000	000	000	000	000	
15	.00	.00	.00	.00	.01	.02		.03	.04	.04	.04	.04	.03		.03	.02	.01	.00	.00	.00		.00	.00	.00	.00	.00	.00	
	000	000	000	001	018	033		045	051	054	054	050	034		034	022	007	000	000	000		000	000	000	000	000	000	
30	.00	.00	.02	.04	.05	.06		.07	.07	.08	.08	.07	.07		.06	.05	.04	.03	.01	.00		.00	.00	.00	.00	.00	.00	
	000	005	029	049	066	080		092	098	101	101	097	090		081	068	054	037	017	000		000	000	000	000	000	000	
45	.02	.04	.06	.07	.09	.10		.11	.11	.11	.11	.11	.10		.10	.09	.08	.06	.05	.03		.01	.00	.00	.00	.00	.00	
	029	055	079	099	116	129		141	146	149	148	145	138		128	116	102	085	066	046		019	000	000	000	000	000	
0500	.06	.08	.10	.11	.13	.14		.14	.15	.15	.15	.15	.14		.13	.13	.11	.10	.09	.07		.05	.04	.02	.00	.00	.00	
	081	107	130	150	166	179		190	196	198	197	193	187		177	165	151	134	116	096		070	045	022	000	000	000	
15	.10	.12	.14	.15	.16	.17		.18	.19	.19	.19	.18	.18		.17	.16	.15	.14	.13	.11		.09	.07	.05	.04	.02	.00	
	134	160	182	202	218	230		241	246	248	247	243	236		227	215	201	185	167	147		121	093	075	050	025	000	
30	.14	.16	.18	.19	.20	.21		.22	.22	.23	.22	.22	.22		.21	.20	.19	.18	.16	.15		.13	.11	.10	.08	.06	.04	
	188	213	235	254	269	282		292	297	299	297	293	287		277	266	252	236	218	199		174	152	128	104	079	053	
45	.18	.20	.22	.23	.24	.25		.26	.26	.26	.26	.26	.26		.25	.24	.23	.22	.20	.19		.17	.15	.14	.12	.10	.08	
	242	267	288	307	322	333		343	348	350	348	344	337		328	317	303	288	270	251		227	205	182	159	134	109	
0600	.22	.24	.26	.27	.28	.29		.30	.30	.30	.30	.30	.29		.29	.28	.27	.26	.24	.23		.21	.19	.18	.16	.14	.12	
	297	321	342	360	374	386		395	399	401	399	395	389		379	368	355	340	323	304		280	257	237	214	189	165	
15	.26	.28	.30	.31	.32	.33		.34	.34	.34	.34	.34	.33		.33	.32	.31	.30	.28	.27		.25	.24	.22	.20	.18	.16	
	351	375	395	413	427	438		447	451	452	450	446	440		431	420	407	392	375	357		334	313	291	268	245	220	
30	.30	.32	.34	.35	.36	.37		.38	.38	.38	.38	.38	.37		.36	.35	.35	.34	.32	.31		.29	.27	.25	.24	.22	.21	
	405	428	448	465	479	489		498	502	503	501	497	491		482	471	458	444	428	410		387	367	345	323	300	276	
45	.34	.36	.37	.39	.40	.41		.41	.42	.42	.42	.41	.41		.40	.39	.39	.37	.36	.35		.33	.32	.30	.28	.26	.25	
	459	481	501	517	530	541		549	553	554	552	548	541		533	522	510	495	480	462		440	420	399	377	355	331	

... SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY .

... SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY .

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ADD 1000 TO VALUES PRECEDED BY .

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ADD 1000 TO VALUES PRECEDED BY .

MST	MAY					JUN					JUL					AUG								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30						
0700	.38	.40	.41	.43	.44	.44	.45	.45	.46	.45	.45	.45	.44	.43	.42	.41	.40	.39	.37	.33	.34	.32	.31	.29
	511	534	553	568	581	591	599	603	603	602	598	591	583	572	560	546	531	514	492	473	453	431	409	385
15	.42	.44	.45	.46	.47	.48	.49	.49	.49	.49	.49	.48	.43	.47	.46	.45	.44	.43	.41	.39	.38	.36	.34	.33
	563	585	603	619	631	641	648	652	653	651	647	641	632	622	610	597	582	565	544	522	505	484	462	439
30	.46	.47	.49	.50	.51	.52	.52	.53	.53	.53	.53	.52	.51	.51	.50	.49	.48	.46	.45	.43	.42	.40	.38	.37
	614	635	653	668	680	689	697	700	701	699	695	689	681	671	659	646	631	615	595	573	554	536	514	491
45	.49	.51	.52	.54	.55	.55	.56	.56	.56	.56	.56	.55	.53	.54	.53	.52	.51	.50	.48	.47	.45	.44	.42	.40
	663	684	701	716	728	737	744	747	747	746	742	736	728	718	707	694	680	664	644	623	606	586	564	542
0800	.53	.54	.56	.57	.58	.59	.59	.60	.60	.60	.59	.59	.58	.58	.57	.56	.55	.54	.52	.51	.49	.47	.46	.44
	711	731	748	762	774	782	789	792	792	791	787	781	773	764	753	741	727	711	692	674	655	635	614	591
15	.56	.58	.59	.60	.61	.62	.63	.63	.63	.63	.63	.62	.62	.61	.60	.59	.58	.57	.55	.54	.53	.51	.49	.48
	756	776	793	807	818	826	833	836	836	834	831	825	813	803	793	786	772	757	738	720	702	682	661	639
30	.60	.61	.62	.64	.64	.65	.66	.66	.66	.66	.66	.66	.65	.64	.63	.63	.62	.60	.59	.57	.55	.54	.53	.51
	800	819	836	849	860	868	874	877	878	876	873	867	860	851	841	829	816	801	782	765	745	727	706	684
45	.63	.64	.65	.67	.68	.68	.69	.69	.69	.69	.69	.69	.68	.67	.67	.66	.65	.63	.62	.61	.59	.58	.56	.54
	842	860	876	889	900	908	914	917	917	916	912	907	900	892	881	870	857	843	824	807	789	770	749	727
0900	.65	.67	.68	.69	.70	.71	.72	.72	.72	.72	.72	.71	.71	.70	.69	.69	.68	.66	.65	.64	.62	.61	.59	.57
	881	899	915	928	938	945	952	954	955	953	950	945	934	930	920	909	896	883	864	843	830	811	790	768
15	.68	.70	.71	.72	.73	.74	.74	.75	.75	.75	.74	.74	.74	.73	.72	.71	.70	.69	.68	.63	.65	.63	.62	.60
	918	935	951	963	973	981	987	989	990	989	985	981	974	966	957	946	932	920	902	885	868	849	828	807
30	.71	.72	.73	.75	.75	.76	.77	.77	.77	.77	.77	.77	.76	.76	.75	.74	.73	.72	.70	.69	.68	.66	.64	.63
	951	969	984	996	006	013	*019	*022	*022	*021	*018	*014	*007	*000	990	980	968	955	937	921	903	884	864	842
45	.73	.74	.76	.77	.78	.78	.79	.79	.79	.79	.79	.79	.78	.78	.77	.76	.75	.74	.73	.72	.70	.69	.67	.65
	982	000	014	026	036	043	*049	*052	*052	*051	*048	*044	*038	*031	022	*011	000	987	969	953	936	917	897	875

MAY-AUG 50 N TABLE B-1 SOLAR PARAMETERS COS Z ... SIGNIFIES COS Z = 1.
 ADD 1000 TO VALUES PRECEDED BY *

MST	DATE											
	MAY						JUN					
	5	10	15	20	25	30	5	10	15	20	25	30
1000	.75	.77	.78	.79	.80	.80	.81	.81	.81	.81	.81	.81
15	.010	.027	.041	.053	.063	.070	.076	.079	.079	.078	.076	.072
30	.77	.78	.80	.81	.82	.82	.83	.83	.83	.83	.83	.83
45	.035	.052	.066	.077	.087	.094	.100	.103	.104	.103	.100	.096
1100	.79	.80	.81	.82	.83	.84	.84	.85	.85	.85	.85	.84
15	.057	.073	.087	.099	.108	.115	.121	.124	.125	.124	.122	.118
30	.80	.81	.83	.84	.84	.85	.86	.86	.86	.86	.86	.86
45	.075	.091	.105	.116	.126	.133	.139	.142	.143	.143	.141	.137
1200	.81	.82	.84	.85	.85	.86	.87	.87	.87	.87	.87	.87
15	.090	.106	.120	.131	.140	.147	.153	.156	.158	.158	.156	.153
30	.82	.83	.84	.85	.86	.87	.88	.88	.88	.88	.88	.88
45	.102	.118	.131	.142	.151	.158	.165	.168	.170	.168	.165	.165
1300	.83	.84	.85	.86	.87	.88	.89	.89	.89	.89	.89	.89
15	.110	.125	.139	.150	.159	.166	.173	.176	.178	.177	.174	.174
30	.83	.84	.85	.86	.87	.88	.89	.89	.89	.89	.89	.89
45	.115	.130	.143	.154	.163	.171	.177	.181	.183	.183	.182	.180
1400	.83	.84	.85	.86	.87	.88	.89	.89	.89	.89	.89	.89
15	.116	.131	.144	.155	.164	.172	.179	.182	.185	.185	.185	.182
30	.83	.84	.85	.86	.87	.88	.89	.89	.89	.89	.89	.89
45	.113	.128	.141	.152	.162	.170	.177	.181	.183	.184	.183	.181
1500	.82	.84	.85	.86	.87	.87	.88	.89	.89	.89	.89	.89
15	.107	.122	.135	.146	.156	.164	.171	.175	.178	.179	.179	.177
30	.82	.83	.84	.85	.86	.87	.88	.88	.88	.88	.88	.88
45	.097	.112	.125	.137	.147	.155	.162	.167	.170	.171	.171	.169

MAY-AUG 50 N TABLE B-1 SOLAR PARAMETERS COS Z XO (W/M*2.) ** SIGNIFIES COS Z = 1. ADD 1000 TO VALUES PRECEDED BY .

MST	MAY					JUN					JUL					AUG								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30						
1300	.81	.82	.83	.84	.85	.86	.87	.87	.87	.88	.88	.88	.87	.87	.86	.86	.85	.84	.82	.81	.80	.78	.76	.74
	.084	.099	.112	.124	.134	.142	.150	.155	.158	.160	.160	.159	.156	.151	.144	.136	.126	.114	.097	.089	.081	.040	.017	.992
15	.79	.81	.82	.83	.84	.85	.85	.86	.86	.86	.87	.86	.86	.86	.85	.85	.84	.83	.81	.80	.78	.77	.75	.73
	.067	.083	.096	.108	.118	.127	.135	.140	.143	.145	.145	.144	.142	.137	.131	.122	.112	.100	.083	.063	.046	.025	.001	.975
30	.78	.79	.80	.81	.82	.83	.84	.85	.85	.85	.85	.85	.85	.85	.84	.83	.83	.82	.80	.78	.77	.75	.73	.71
	.047	.063	.076	.089	.099	.108	.116	.122	.125	.128	.128	.127	.125	.120	.114	.105	.095	.083	.065	.043	.028	.006	.982	.956
45	.76	.77	.79	.80	.81	.82	.82	.83	.83	.84	.84	.84	.83	.83	.83	.82	.81	.80	.79	.77	.75	.74	.72	.69
	.024	.040	.054	.066	.077	.086	.094	.100	.104	.107	.108	.107	.104	.100	.093	.085	.075	.062	.044	.027	.007	.985	.960	.933
1400	.74	.76	.77	.78	.79	.80	.81	.81	.81	.82	.82	.82	.82	.81	.81	.80	.79	.78	.77	.75	.74	.72	.70	.68
	.998	.014	.028	.040	.051	.061	.070	.076	.080	.083	.084	.083	.081	.076	.070	.062	.051	.039	.020	.002	.982	.959	.934	.907
15	.72	.73	.75	.76	.77	.78	.78	.79	.79	.80	.80	.80	.80	.79	.79	.78	.77	.76	.75	.73	.72	.70	.68	.65
	.968	.984	.999	.012	.023	.033	.042	.048	.053	.056	.057	.057	.055	.050	.044	.036	.025	.012	.993	.975	.954	.931	.906	.878
30	.70	.71	.72	.73	.74	.75	.76	.77	.77	.77	.78	.78	.77	.77	.77	.76	.75	.74	.72	.71	.69	.67	.65	.63
	.936	.952	.967	.980	.992	.002	.012	.018	.023	.026	.028	.028	.025	.021	.015	.006	.996	.982	.963	.945	.924	.900	.874	.845
45	.67	.68	.70	.71	.72	.73	.74	.74	.75	.75	.75	.75	.75	.75	.74	.74	.73	.72	.70	.63	.67	.65	.63	.60
	.901	.917	.932	.946	.958	.968	.979	.986	.991	.994	.996	.996	.994	.989	.983	.974	.963	.950	.931	.911	.890	.866	.839	.810
1500	.64	.66	.67	.68	.69	.70	.71	.72	.72	.72	.73	.73	.72	.72	.72	.71	.70	.69	.67	.63	.64	.62	.60	.57
	.863	.880	.895	.909	.921	.932	.943	.950	.956	.960	.961	.961	.959	.955	.949	.940	.929	.915	.895	.876	.853	.829	.802	.772
15	.61	.63	.64	.65	.66	.67	.68	.69	.69	.70	.70	.70	.70	.69	.69	.68	.67	.66	.64	.63	.61	.59	.57	.54
	.823	.840	.856	.870	.883	.894	.905	.913	.918	.922	.924	.925	.922	.918	.912	.903	.891	.877	.857	.837	.815	.789	.762	.731
30	.58	.59	.61	.62	.63	.64	.65	.66	.66	.67	.67	.67	.67	.66	.66	.65	.64	.63	.61	.60	.58	.56	.54	.51
	.780	.798	.814	.828	.842	.853	.865	.873	.879	.883	.885	.885	.883	.879	.873	.863	.852	.837	.817	.795	.773	.747	.719	.688
45	.55	.56	.58	.59	.60	.61	.62	.63	.63	.64	.64	.64	.64	.63	.63	.62	.61	.60	.58	.57	.55	.53	.50	.48
	.735	.753	.770	.785	.798	.810	.823	.831	.837	.842	.844	.844	.842	.838	.831	.822	.810	.795	.774	.753	.730	.703	.674	.643

TABLE B-1 SOLAR PARAMETERS COS Z
 MAY-AUG 50 N
 *** SIGNIFIES COS Z = 1.
 ADD 1000 TO VALUES PRECEDED BY *

MST	MAY						JUN						JUL						AUG						
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1900	.04	.06	.08	.09	.11	.12	.13	.14	.15	.16	.16	.16	.16	.15	.14	.13	.12	.11	.08	.03	.04	.02	.00	.00	
	056	081	104	125	144	161	178	190	199	206	209	209	206	206	199	180	176	160	140	112	085	055	022	000	000
15	.00	.02	.04	.06	.07	.08	.10	.11	.11	.12	.12	.12	.12	.12	.11	.11	.10	.08	.07	.05	.02	.00	.00	.00	.00
	005	029	053	074	094	111	129	141	150	157	163	163	159	159	150	140	126	109	089	060	035	002	000	000	000
30	.00	.00	.00	.02	.03	.05	.06	.07	.08	.08	.08	.08	.08	.08	.08	.07	.06	.05	.03	.01	.03	.00	.00	.00	.00
	000	000	003	025	045	063	081	093	102	109	112	112	108	108	101	091	077	059	039	010	000	000	000	000	000
45	.00	.00	.00	.00	.00	.01	.03	.04	.04	.05	.05	.05	.05	.05	.04	.03	.02	.01	.00	.00	.03	.00	.00	.00	.00
	000	000	000	000	000	016	034	046	056	062	065	065	061	061	054	043	029	011	000	000	003	000	000	000	000
2000	.00	.00	.00	.00	.00	.00	.00	.00	.01	.01	.02	.01	.01	.01	.00	.00	.00	.00	.00	.00	.03	.00	.00	.00	.00
	000	000	000	000	000	000	000	001	010	017	020	019	015	008	000	000	000	000	000	000	003	000	000	000	000
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	003	000	000	000	000
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	003	000	000	000	000
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	003	000	000	000	000

*** SIGNIFIES COS 2 =1.
ADD 1000 TO VALUES PRECEDED BY *

TABLE B-1 SOLAR PARAMETERS
XO (W/M**2.)

MAY-AUG 50 N

MST	SEP					OCT					DATE					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
30	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	022	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
45	.06	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	078	051	023	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
0600	.10	.08	.06	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	134	107	080	053	024	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
15	.14	.12	.10	.08	.06	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	190	164	137	110	082	053	023	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
30	.18	.16	.14	.12	.10	.08	.06	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	246	220	194	166	138	110	080	050	020	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
45	.22	.20	.18	.16	.14	.12	.10	.08	.06	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	302	276	250	223	195	166	136	106	075	044	013	000	000	000	000	000	000	000	000	000	000	000	000	000	
0700	.26	.25	.23	.20	.18	.16	.14	.12	.10	.07	.05	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	356	331	305	278	250	221	192	161	130	099	068	036	000	000	000	000	000	000	000	000	000	000	000	000	
15	.30	.29	.27	.24	.22	.20	.18	.16	.13	.11	.09	.06	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	410	365	359	332	304	275	246	215	184	153	121	089	051	021	000	000	000	000	000	000	000	000	000	000	
30	.34	.32	.30	.28	.26	.24	.22	.20	.17	.15	.13	.10	.07	.05	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	
	463	438	412	385	357	328	298	268	237	205	172	141	103	072	042	014	000	000	000	000	000	000	000	000	
45	.38	.36	.34	.32	.30	.28	.26	.23	.21	.19	.16	.14	.11	.09	.07	.05	.03	.01	.00	.00	.00	.00	.00	.00	
	514	489	463	436	408	379	349	319	287	255	223	191	153	121	091	063	037	012	000	000	000	000	000	000	

... SIGNIFIES COS Z =1.
ADD 1000 TO VALUES PRECEDED BY .

TABLE B-1 SOLAR PARAMETERS COS Z
XO (W/30-2.)

SEP-DEC 50 N

MST	SEP					OCT					DATE					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
0800	.42	.40	.38	.36	.34	.31	.29	.27	.24	.22	.20	.17	.14	.12	.10	.08	.06	.04	.03	.01	.00	.00	.00	.00	
	563	539	513	486	458	429	399	368	336	304	271	239	203	169	139	110	084	060	038	023	005	000	000	000	
15	.45	.43	.41	.39	.37	.35	.33	.30	.28	.25	.23	.21	.18	.15	.13	.11	.09	.08	.06	.05	.04	.03	.02	.02	
	611	586	560	533	505	476	446	415	383	350	319	285	249	215	184	156	129	105	084	065	051	040	033	030	
30	.49	.47	.45	.43	.40	.38	.36	.33	.31	.29	.26	.24	.21	.19	.16	.14	.12	.11	.09	.08	.07	.06	.05	.05	
	656	632	606	579	551	521	491	459	427	395	362	329	290	258	228	199	172	148	127	109	094	084	077	074	
45	.52	.50	.48	.46	.44	.41	.39	.37	.34	.32	.29	.27	.24	.21	.19	.17	.15	.13	.12	.11	.10	.09	.08	.08	
	700	675	649	622	594	564	533	502	469	436	403	370	331	299	269	240	213	189	168	150	135	126	119	117	
0900	.55	.53	.51	.49	.47	.44	.42	.39	.37	.34	.32	.29	.27	.24	.22	.20	.18	.16	.15	.13	.12	.12	.11	.11	
	740	716	690	662	634	604	573	541	509	475	442	409	369	337	307	278	252	228	207	189	175	165	159	157	
15	.58	.56	.54	.52	.49	.47	.45	.42	.40	.37	.35	.32	.29	.27	.24	.22	.20	.19	.17	.15	.15	.14	.14	.14	
	779	754	728	700	671	641	610	578	545	512	478	444	405	373	342	314	287	263	243	225	212	202	196	195	
30	.60	.58	.56	.54	.52	.49	.47	.45	.42	.39	.37	.34	.31	.29	.27	.25	.23	.21	.20	.19	.17	.17	.16	.16	
	814	789	763	735	706	676	644	612	579	545	511	477	438	406	375	346	320	296	276	259	245	236	231	230	
45	.63	.61	.59	.56	.54	.52	.49	.47	.44	.42	.39	.37	.34	.31	.29	.27	.25	.23	.22	.21	.20	.19	.19	.19	
	847	822	795	767	738	707	675	642	609	575	541	507	467	435	405	376	350	326	306	289	275	268	263	263	
1000	.65	.63	.61	.59	.56	.54	.51	.49	.46	.44	.41	.38	.35	.33	.31	.29	.27	.25	.24	.22	.22	.21	.21	.21	
	876	851	824	796	766	735	703	670	636	602	568	533	493	461	431	402	376	353	333	317	304	296	292	292	
15	.67	.65	.63	.60	.58	.56	.53	.51	.48	.45	.43	.40	.37	.35	.32	.30	.28	.27	.25	.24	.23	.23	.22	.23	
	902	877	850	821	791	760	727	694	660	625	591	557	517	484	454	426	400	377	357	341	329	321	318	318	
30	.69	.67	.64	.62	.60	.57	.55	.52	.49	.47	.44	.42	.39	.36	.34	.32	.30	.28	.27	.25	.25	.24	.24	.24	
	925	900	872	843	813	781	748	715	680	646	611	576	535	504	474	445	420	397	378	362	351	343	340	342	
45	.70	.68	.66	.63	.61	.58	.56	.53	.51	.48	.45	.43	.40	.37	.35	.33	.31	.29	.28	.27	.26	.26	.25	.26	
	945	919	891	862	831	799	766	732	697	662	627	593	552	520	490	462	437	414	395	383	369	362	359	361	

SEP-DEC 50 N TABLE 8-1 SOLAR PARAMETERS COS Z ** SIGNIFIES COS Z = 1.
 ADD 1000 TO VALUES PRECEDED BY .

MST	SEP					OCT					NOV					DEC								
	DATE					DATE					DATE					DATE								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1100	.71	.69	.67	.65	.62	.60	.57	.54	.52	.49	.46	.44	.41	.39	.36	.34	.32	.30	.29	.28	.27	.27	.27	.27
	961	934	906	877	846	813	780	745	710	675	640	605	565	533	503	475	450	428	409	391	384	377	375	378
15	.72	.70	.68	.65	.63	.60	.58	.55	.52	.50	.47	.44	.41	.39	.37	.35	.33	.31	.30	.29	.29	.28	.27	.28
	973	947	918	888	857	824	790	755	720	684	649	614	574	542	512	484	459	438	420	405	395	389	388	391
30	.73	.71	.68	.66	.63	.61	.58	.55	.53	.50	.47	.45	.42	.39	.37	.35	.33	.32	.30	.29	.29	.28	.28	.28
	982	955	926	896	864	830	796	761	725	690	654	619	579	547	517	490	465	444	426	413	403	398	397	400
45	.73	.71	.69	.66	.64	.61	.58	.56	.53	.50	.47	.45	.42	.39	.37	.35	.33	.32	.31	.30	.29	.28	.28	.29
	987	960	931	900	867	833	799	763	727	691	656	621	581	549	519	492	468	447	430	416	407	402	402	406
1200	.73	.71	.69	.66	.64	.61	.58	.55	.53	.50	.47	.45	.42	.39	.37	.35	.33	.32	.30	.29	.29	.29	.29	.29
	989	961	931	900	867	833	798	762	726	689	654	619	578	547	517	490	467	446	429	417	408	404	404	408
15	.73	.71	.69	.66	.63	.61	.58	.55	.52	.49	.47	.44	.41	.39	.37	.35	.33	.31	.30	.29	.29	.28	.28	.29
	987	958	928	896	863	828	793	757	720	684	648	613	573	541	512	485	462	442	425	413	405	401	402	407
30	.73	.70	.68	.65	.63	.60	.57	.54	.52	.49	.46	.43	.40	.38	.36	.34	.32	.31	.30	.29	.28	.28	.28	.28
	981	952	921	889	855	820	784	748	711	674	638	603	563	532	503	476	453	434	418	405	399	395	397	402
45	.72	.70	.67	.65	.62	.59	.56	.53	.51	.48	.45	.42	.39	.37	.35	.33	.31	.30	.29	.29	.28	.27	.27	.28
	971	942	911	878	844	808	772	735	698	661	625	590	550	519	490	464	441	422	407	395	389	386	388	394
1300	.71	.69	.66	.64	.61	.58	.55	.52	.49	.47	.44	.41	.38	.36	.34	.32	.30	.29	.28	.27	.27	.26	.27	.27
	958	928	897	863	828	792	756	719	681	644	608	573	533	502	474	448	426	407	392	382	375	373	375	382
15	.70	.67	.65	.62	.59	.57	.54	.51	.48	.45	.42	.40	.37	.35	.32	.31	.29	.28	.27	.25	.25	.25	.25	.26
	942	911	879	845	810	773	736	699	661	624	588	553	513	482	454	429	407	389	374	361	358	357	360	367
30	.68	.66	.63	.61	.58	.55	.52	.49	.46	.43	.41	.38	.35	.33	.31	.29	.27	.26	.25	.21	.21	.24	.24	.25
	921	891	858	823	787	751	713	675	638	600	564	529	489	459	431	406	385	367	353	343	333	337	340	348
45	.67	.64	.61	.59	.56	.53	.50	.47	.44	.41	.39	.36	.32	.31	.29	.27	.26	.24	.23	.23	.22	.22	.23	.23
	898	866	833	798	762	725	687	649	611	573	537	502	462	432	405	380	359	342	329	319	314	314	318	326

... SIGNIFIES COS Z = 1.
;DD 1000 TO VALUES PRECEDED BY .

TABLE B-1 SOLAR PARAMETERS COS Z
XO (W/M=2.)

SEP-DEC 50 N

MST	SEP					OCT					NOV					DEC							
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30					
400	.65	.62	.59	.57	.54	.51	.48	.45	.42	.39	.37	.34	.31	.29	.27	.25	.24	.22	.21	.20	.20	.21	.21
	871	839	805	770	733	695	657	619	580	543	506	472	432	402	375	351	330	314	301	292	288	292	301
15	.62	.60	.57	.54	.51	.49	.46	.43	.40	.37	.34	.32	.29	.26	.25	.23	.21	.20	.19	.19	.18	.19	.19
	841	808	774	738	701	663	624	585	547	509	473	439	399	369	342	319	299	282	270	262	258	259	263
30	.60	.57	.55	.52	.49	.46	.43	.40	.37	.34	.32	.29	.26	.24	.22	.20	.19	.18	.17	.16	.16	.16	.17
	808	775	740	703	666	627	588	549	511	473	437	402	363	334	307	284	264	248	236	223	225	226	232
45	.57	.55	.52	.49	.46	.43	.40	.37	.34	.31	.29	.26	.23	.21	.19	.18	.16	.15	.14	.14	.13	.14	.15
	772	738	703	666	628	589	549	510	471	434	397	363	324	295	269	246	227	211	200	193	190	191	197
1500	.54	.52	.49	.46	.43	.40	.37	.34	.31	.28	.26	.23	.20	.18	.16	.15	.13	.12	.11	.11	.11	.11	.12
	733	699	663	625	587	548	508	469	430	392	355	321	283	254	228	205	187	172	161	154	152	154	160
15	.51	.49	.46	.43	.40	.37	.34	.31	.28	.25	.22	.20	.17	.15	.13	.12	.10	.09	.09	.09	.08	.08	.09
	692	657	621	583	544	504	464	424	385	347	311	277	239	210	185	163	144	130	119	113	111	113	120
30	.48	.45	.43	.40	.37	.34	.31	.28	.25	.22	.19	.17	.14	.12	.10	.08	.07	.06	.05	.05	.05	.05	.06
	648	613	576	537	498	458	418	378	339	301	265	230	193	164	139	118	100	886	076	070	059	071	077
45	.45	.42	.39	.36	.33	.30	.27	.24	.21	.18	.16	.13	.10	.08	.07	.05	.04	.03	.02	.02	.02	.02	.03
	602	567	529	490	450	410	369	329	290	252	216	182	144	116	092	070	053	039	030	024	023	026	033
1600	.41	.38	.35	.32	.29	.26	.23	.20	.17	.15	.12	.10	.07	.05	.03	.02	.00	.00	.00	.00	.00	.00	.00
	555	518	480	440	400	360	319	279	239	202	165	132	094	067	042	021	004	000	000	000	000	000	000
15	.37	.35	.32	.29	.26	.23	.20	.17	.14	.11	.08	.06	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00
	505	468	429	389	349	308	267	226	187	149	113	080	043	015	000	000	000	000	000	000	000	000	000
30	.34	.31	.28	.25	.22	.19	.16	.13	.10	.07	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	453	416	377	337	296	254	213	173	133	096	060	026	000	000	000	000	000	000	000	000	000	000	000
45	.30	.27	.24	.21	.18	.15	.12	.09	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	401	363	323	282	241	200	158	118	079	041	005	000	000	000	000	000	000	000	000	000	000	000	000

TABLE 8-1 SOLAR PARAMETERS COS Z
XO (W/M*2.)

* SIGNIFIES COS Z = 1.

ADD 1000 TO VALUES PRECEDED BY *

MST	DATE																							
	SEP					OCT					NOV					DEC								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1700	.26	.23	.20	.17	.14	.11	.08	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	347	308	268	227	186	144	103	062	023	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.22	.19	.16	.13	.10	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	292	253	213	171	129	088	046	005	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.18	.15	.12	.08	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	236	197	156	115	073	030	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.13	.10	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	180	140	099	058	015	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
1800	.09	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	124	084	042	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	068	027	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	012	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000

SEP-DEC 50 N TABLE B-1 SOLAR PARAMETERS COS Z
X0 (W/M**2.) *** SIGNIFIES COS Z =1.
ADD 1000 TO VALUES PRECEDED BY *

MST	DATE																															
	JAN			FEB			MAR			APR																						
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30													
0800	.01	.01	.01	.01	.02	.03	.04	.06	.08	.10	.12	.15	.17	.22	.25	.28	.31	.34	.37	.40	.43	.45	.48	.50	.52	.547	.582	.614	.645	.673	.698	
15	.04	.04	.05	.06	.07	.08	.09	.11	.12	.14	.16	.19	.21	.26	.29	.32	.35	.38	.40	.44	.43	.43	.43	.51	.53	.55	.598	.632	.661	.694	.721	.746
30	.08	.08	.08	.09	.10	.11	.13	.15	.17	.20	.22	.25	.28	.33	.36	.39	.42	.45	.47	.47	.50	.52	.55	.57	.59	.647	.680	.712	.741	.768	.792	
45	.11	.11	.11	.12	.13	.15	.16	.19	.21	.23	.26	.28	.33	.36	.39	.42	.45	.47	.51	.53	.55	.58	.60	.62	.693	.723	.758	.786	.812	.836		
0900	.14	.14	.15	.15	.17	.18	.20	.22	.24	.26	.29	.32	.35	.38	.40	.43	.45	.48	.51	.54	.53	.53	.53	.61	.63	.65	.737	.770	.800	.828	.854	.877
15	.17	.17	.17	.18	.19	.21	.23	.25	.27	.30	.32	.35	.38	.42	.45	.48	.51	.54	.57	.57	.53	.52	.64	.66	.68	.778	.811	.841	.868	.893	.915	
30	.19	.19	.20	.21	.22	.24	.25	.28	.30	.33	.35	.38	.42	.45	.48	.51	.54	.57	.59	.60	.62	.65	.67	.69	.71	.817	.843	.878	.905	.929	.951	
45	.22	.22	.23	.24	.25	.26	.28	.30	.33	.35	.38	.41	.45	.48	.51	.54	.56	.59	.62	.62	.65	.67	.69	.71	.73	.817	.843	.878	.912	.939	.962	.984
1000	.24	.24	.25	.26	.27	.29	.30	.33	.35	.38	.40	.43	.46	.49	.52	.55	.58	.61	.64	.65	.67	.69	.71	.73	.75	.817	.843	.878	.912	.939	.962	.984
15	.26	.26	.27	.28	.29	.31	.33	.35	.37	.40	.43	.45	.49	.52	.55	.58	.61	.64	.67	.67	.69	.71	.73	.75	.77	.817	.843	.878	.912	.939	.962	.984
30	.27	.28	.29	.30	.31	.33	.35	.37	.39	.42	.45	.47	.50	.53	.55	.58	.61	.64	.69	.69	.71	.73	.75	.77	.79	.817	.843	.878	.912	.939	.962	.984
45	.29	.29	.30	.31	.33	.34	.36	.39	.41	.44	.46	.49	.52	.55	.57	.60	.63	.66	.70	.70	.73	.75	.77	.79	.817	.843	.878	.912	.939	.962	.984	

*** SIGNIFIES COS Z =1.
ADD 1000 TO VALUES PRECEDED BY *

SOLAR PARAMETERS
COS Z
XO (W/MH*2.)

TABLE B-1

JAN-APR 48 N

MST

DATE

	JAN					FEB					MAR					APR				
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1100	.30 .31 .31 .33 .34 .36 .38 426 433 444 461 480 504 530	.40 .43 .45 .48 .51 566 598 633 668 705	.53 .58 .61 .63 .66 .69 765 802 838 874 908 941	.72 .74 .76 .78 .80 .81 978 1007 1033 1057 1079 1098	.73 .75 .77 .79 .81 .82 992 1020 1048 1070 1091 1110	.73 .75 .78 .80 .81 .83 1003 1030 1058 1079 1100 1119	.74 .76 .78 .80 .82 .83 1009 1037 1062 1085 1105 1124	.74 .76 .78 .80 .82 .83 1012 1033 1051 1086 1107 1125	.74 .76 .78 .80 .82 .83 1011 1037 1062 1084 1104 1122	.74 .76 .78 .80 .81 .83 1006 1032 1058 1078 1098 1116	.73 .75 .77 .79 .80 .82 997 1023 1048 1068 1088 1106	.72 .74 .76 .78 .79 .81 984 1010 1033 1055 1074 1092	.71 .73 .75 .77 .78 .80 968 993 1013 1038 1057 1075	.69 .71 .73 .75 .77 .78 947 972 995 1017 1036 1054	.68 .70 .71 .73 .75 .76 923 943 971 992 1012 1030					
15	.31 .32 .32 .34 .35 .37 .39 440 447 459 476 496 520 547	.41 .44 .46 .49 .52 583 616 650 686 722	.54 .59 .62 .64 .67 .70 782 818 855 890 924 956	.73 .75 .77 .79 .81 .82 992 1020 1048 1070 1091 1110	.73 .75 .78 .80 .81 .83 1003 1030 1058 1079 1100 1119	.74 .76 .78 .80 .82 .83 1009 1037 1062 1085 1105 1124	.74 .76 .78 .80 .82 .83 1012 1033 1051 1086 1107 1125	.74 .76 .78 .80 .82 .83 1011 1037 1062 1084 1104 1122	.74 .76 .78 .80 .81 .83 1006 1032 1058 1078 1098 1116	.73 .75 .77 .79 .80 .82 997 1023 1048 1068 1088 1106	.72 .74 .76 .78 .79 .81 984 1010 1033 1055 1074 1092	.71 .73 .75 .77 .78 .80 968 993 1013 1038 1057 1075	.69 .71 .73 .75 .77 .78 947 972 995 1017 1036 1054	.68 .70 .71 .73 .75 .76 923 943 971 992 1012 1030						
30	.32 .32 .33 .35 .36 .38 .40 450 457 470 487 508 533 560	.42 .45 .47 .50 .53 596 629 663 699 736	.57 .60 .63 .65 .68 .70 794 831 867 902 935 967	.73 .75 .78 .80 .81 .83 1003 1030 1058 1079 1100 1119	.74 .76 .78 .80 .82 .83 1009 1037 1062 1085 1105 1124	.74 .76 .78 .80 .82 .83 1012 1033 1051 1086 1107 1125	.74 .76 .78 .80 .82 .83 1011 1037 1062 1084 1104 1122	.74 .76 .78 .80 .81 .83 1006 1032 1058 1078 1098 1116	.73 .75 .77 .79 .80 .82 997 1023 1048 1068 1088 1106	.72 .74 .76 .78 .79 .81 984 1010 1033 1055 1074 1092	.71 .73 .75 .77 .78 .80 968 993 1013 1038 1057 1075	.69 .71 .73 .75 .77 .78 947 972 995 1017 1036 1054	.68 .70 .71 .73 .75 .76 923 943 971 992 1012 1030							
45	.32 .33 .34 .35 .37 .38 .40 456 464 478 495 517 541 569	.43 .45 .48 .51 .53 606 638 673 709 745	.58 .61 .64 .66 .69 .71 804 840 875 910 943 974	.74 .76 .78 .80 .82 .83 1009 1037 1062 1085 1105 1124	.74 .76 .78 .80 .82 .83 1012 1033 1051 1086 1107 1125	.74 .76 .78 .80 .82 .83 1011 1037 1062 1084 1104 1122	.74 .76 .78 .80 .81 .83 1006 1032 1058 1078 1098 1116	.73 .75 .77 .79 .80 .82 997 1023 1048 1068 1088 1106	.72 .74 .76 .78 .79 .81 984 1010 1033 1055 1074 1092	.71 .73 .75 .77 .78 .80 968 993 1013 1038 1057 1075	.69 .71 .73 .75 .77 .78 947 972 995 1017 1036 1054	.68 .70 .71 .73 .75 .76 923 943 971 992 1012 1030								
1200	.32 .33 .34 .35 .37 .39 .41 459 467 481 500 521 546 574	.43 .46 .48 .51 .54 611 644 679 714 750	.54 .59 .62 .64 .67 .69 .71 800 835 870 902 934 964	.74 .76 .78 .80 .82 .83 1009 1037 1062 1085 1105 1124	.74 .76 .78 .80 .82 .83 1012 1033 1051 1086 1107 1125	.74 .76 .78 .80 .82 .83 1011 1037 1062 1084 1104 1122	.74 .76 .78 .80 .81 .83 1006 1032 1058 1078 1098 1116	.73 .75 .77 .79 .80 .82 997 1023 1048 1068 1088 1106	.72 .74 .76 .78 .79 .81 984 1010 1033 1055 1074 1092	.71 .73 .75 .77 .78 .80 968 993 1013 1038 1057 1075	.69 .71 .73 .75 .77 .78 947 972 995 1017 1036 1054	.68 .70 .71 .73 .75 .76 923 943 971 992 1012 1030								
15	.32 .33 .34 .35 .37 .39 .41 458 467 481 500 522 547 576	.44 .46 .49 .51 .54 613 646 680 716 752	.58 .61 .64 .66 .69 .71 807 842 877 910 942 972	.74 .76 .78 .80 .82 .83 1009 1037 1062 1085 1105 1124	.74 .76 .78 .80 .82 .83 1012 1033 1051 1086 1107 1125	.74 .76 .78 .80 .82 .83 1011 1037 1062 1084 1104 1122	.74 .76 .78 .80 .81 .83 1006 1032 1058 1078 1098 1116	.73 .75 .77 .79 .80 .82 997 1023 1048 1068 1088 1106	.72 .74 .76 .78 .79 .81 984 1010 1033 1055 1074 1092	.71 .73 .75 .77 .78 .80 968 993 1013 1038 1057 1075	.69 .71 .73 .75 .77 .78 947 972 995 1017 1036 1054	.68 .70 .71 .73 .75 .76 923 943 971 992 1012 1030								
30	.32 .33 .34 .35 .37 .39 .41 453 462 478 497 519 545 573	.43 .46 .48 .51 .54 611 644 678 714 750	.58 .60 .63 .65 .68 .70 800 835 870 902 934 964	.74 .76 .78 .80 .82 .83 1009 1037 1062 1085 1105 1124	.74 .76 .78 .80 .82 .83 1012 1033 1051 1086 1107 1125	.74 .76 .78 .80 .82 .83 1011 1037 1062 1084 1104 1122	.74 .76 .78 .80 .81 .83 1006 1032 1058 1078 1098 1116	.73 .75 .77 .79 .80 .82 997 1023 1048 1068 1088 1106	.72 .74 .76 .78 .79 .81 984 1010 1033 1055 1074 1092	.71 .73 .75 .77 .78 .80 968 993 1013 1038 1057 1075	.69 .71 .73 .75 .77 .78 947 972 995 1017 1036 1054	.68 .70 .71 .73 .75 .76 923 943 971 992 1012 1030								
45	.31 .32 .33 .35 .36 .38 .40 445 454 470 489 512 538 567	.43 .45 .48 .51 .53 604 638 672 708 743	.58 .60 .63 .65 .68 .70 800 835 870 902 934 964	.74 .76 .78 .80 .82 .83 1009 1037 1062 1085 1105 1124	.74 .76 .78 .80 .82 .83 1012 1033 1051 1086 1107 1125	.74 .76 .78 .80 .82 .83 1011 1037 1062 1084 1104 1122	.74 .76 .78 .80 .81 .83 1006 1032 1058 1078 1098 1116	.73 .75 .77 .79 .80 .82 997 1023 1048 1068 1088 1106	.72 .74 .76 .78 .79 .81 984 1010 1033 1055 1074 1092	.71 .73 .75 .77 .78 .80 968 993 1013 1038 1057 1075	.69 .71 .73 .75 .77 .78 947 972 995 1017 1036 1054	.68 .70 .71 .73 .75 .76 923 943 971 992 1012 1030								
1300	.31 .31 .32 .34 .36 .37 .40 433 443 459 479 502 528 557	.42 .45 .47 .50 .53 595 628 662 698 733	.57 .59 .62 .65 .67 .69 790 824 858 891 922 951	.72 .74 .76 .78 .79 .81 984 1010 1033 1055 1074 1092	.72 .74 .76 .78 .79 .81 984 1010 1033 1055 1074 1092	.71 .73 .75 .77 .78 .80 968 993 1013 1038 1057 1075	.69 .71 .73 .75 .77 .78 947 972 995 1017 1036 1054	.68 .70 .71 .73 .75 .76 923 943 971 992 1012 1030												
15	.29 .30 .31 .33 .35 .36 .39 417 427 444 464 487 514 543	.41 .44 .46 .49 .52 581 614 648 684 719	.56 .58 .61 .63 .66 .68 775 810 843 875 906 935	.71 .73 .75 .77 .78 .80 968 993 1013 1038 1057 1075	.71 .73 .75 .77 .78 .80 968 993 1013 1038 1057 1075	.69 .71 .73 .75 .77 .78 947 972 995 1017 1036 1054	.68 .70 .71 .73 .75 .76 923 943 971 992 1012 1030													
30	.28 .29 .30 .32 .33 .35 .37 398 408 425 446 470 496 526	.40 .42 .45 .48 .50 563 597 631 666 701	.54 .57 .60 .62 .64 .67 757 791 824 856 886 915	.69 .71 .73 .75 .77 .78 947 972 995 1017 1036 1054	.69 .71 .73 .75 .77 .78 947 972 995 1017 1036 1054	.68 .70 .71 .73 .75 .76 923 943 971 992 1012 1030														
45	.27 .27 .29 .30 .32 .34 .36 375 386 403 424 448 475 504	.39 .41 .44 .46 .49 542 575 610 644 679	.53 .55 .59 .60 .63 .65 735 769 801 833 863 891	.68 .70 .71 .73 .75 .76 923 943 971 992 1012 1030	.68 .70 .71 .73 .75 .76 923 943 971 992 1012 1030															

... SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BYCOS Z
XO (W/M**2.)

SOLAR PARAMETERS

TABLE B-1

48 N

JAN-APR

MST

DATE

JAN

FEB

MAR

APR

	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1400	.25	.25	.27	.28	.30	.32	.34	.37	.39	.42	.44	.47	.51	.54	.56	.58	.61	.63	.66
349	360	378	399	423	450	480		518	551	585	619	654	703	743	775	806	836	864	896
15	.23	.23	.25	.26	.28	.30	.32	.35	.37	.40	.42	.45	.48	.51	.54	.56	.59	.61	.63
319	331	349	370	395	422	452		489	522	556	591	625	680	713	745	776	806	834	865
30	.20	.21	.22	.24	.26	.28	.30	.33	.35	.37	.40	.43	.47	.49	.51	.54	.56	.58	.61
287	299	317	339	363	391	420		458	491	525	559	593	647	680	712	743	772	800	831
45	.18	.19	.20	.22	.23	.25	.27	.30	.32	.35	.37	.40	.44	.46	.49	.51	.53	.56	.58
251	263	282	304	329	356	385		423	456	490	524	558	611	644	676	706	735	763	794
1500	.15	.16	.17	.19	.21	.23	.25	.27	.30	.32	.35	.37	.41	.44	.46	.48	.51	.53	.55
213	225	244	266	291	318	348		385	418	452	485	519	572	605	636	666	695	723	754
15	.12	.13	.14	.16	.18	.20	.22	.25	.27	.29	.32	.34	.38	.41	.43	.45	.47	.50	.52
172	184	203	225	250	278	307		345	377	410	444	478	530	562	594	623	652	680	711
30	.09	.10	.11	.13	.15	.17	.19	.21	.24	.26	.29	.31	.35	.37	.40	.42	.44	.46	.49
128	141	160	182	207	235	264		301	334	367	400	433	486	517	548	578	607	634	665
45	.06	.07	.08	.10	.11	.13	.16	.18	.21	.23	.25	.28	.32	.34	.36	.38	.41	.43	.45
082	095	115	137	162	189	218		255	288	320	353	386	438	470	501	530	559	586	617
1600	.02	.03	.05	.06	.08	.10	.12	.15	.17	.19	.22	.24	.28	.30	.33	.35	.37	.39	.41
034	047	067	089	114	141	170		207	239	272	304	337	389	420	451	480	508	536	567
15	.00	.00	.01	.03	.05	.07	.09	.11	.13	.16	.18	.20	.24	.27	.29	.31	.33	.35	.38
000	000	017	039	064	091	120		157	188	221	253	286	337	368	398	428	456	483	515
30	.00	.00	.00	.00	.01	.03	.05	.07	.10	.12	.14	.17	.20	.23	.25	.27	.29	.31	.34
000	000	000	000	012	039	068		104	136	168	200	232	283	314	344	374	402	429	461
45	.00	.00	.00	.00	.00	.00	.01	.04	.06	.08	.10	.13	.16	.19	.21	.23	.25	.27	.30
000	000	000	000	000	000	000	014	050	081	113	145	177	228	258	288	318	346	374	405

JAN-APR

48 N

TABLE B-1

SOLAR PARAMETERS

COS Z

X0 (W/M**2.)

*** SIGNIFIES COS Z = 1.

ADD 1000 TO VALUES PRECEDED BY *

NST	DATE																																																																																																																																																																																																																																																																																																																																																									
	JAN				FEB				MAR				APR																																																																																																																																																																																																																																																																																																																																													
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30																																																																																																																																																																																																																																																																																																																																							
1700	.00 .00 .00 .00 .00 .00 .00	.00 .02 .04 .06 .09	.12 .15 .17 .19 .21 .23	.26 .27 .29 .31 .33 .35	.348 374 398 422 445 466	.21 .23 .25 .27 .29 .30	.290 315 341 365 388 410	.17 .19 .21 .23 .25 .26	.232 258 283 308 331 354	.13 .15 .17 .18 .20 .22	.173 193 225 250 274 297	.08 .10 .12 .14 .16 .18	.113 143 166 191 216 240	.04 .05 .08 .10 .12 .14	.053 081 107 133 158 182	.00 .02 .04 .06 .08 .09	.000 022 049 075 101 126	.00 .03 .05 .01 .03 .05	.000 000 000 018 044 069																																																																																																																																																																																																																																																																																																																																							
15	.00 .00 .00 .00 .00 .00 .00	.00 .00 .00 .02 .05	.08 .10 .13 .15 .17 .19	.21 .23 .25 .27 .29 .30	.290 315 341 365 388 410	.17 .19 .21 .23 .25 .26	.232 258 283 308 331 354	.13 .15 .17 .18 .20 .22	.173 193 225 250 274 297	.08 .10 .12 .14 .16 .18	.113 143 166 191 216 240	.04 .05 .08 .10 .12 .14	.053 081 107 133 158 182	.00 .02 .04 .06 .08 .09	.000 022 049 075 101 126	.00 .03 .05 .01 .03 .05	.000 000 000 018 044 069																																																																																																																																																																																																																																																																																																																																									
30	.00 .00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00																																																																																																																																																																																																																																																																																																																																							
45	.00 .00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .

*** SIGNIFIES COS Z =1.
ADD 1000 TO VALUES PRECEDED BY .

COS Z
X0 (M/H*2.)

SOLAR PARAMETERS

TABLE B-1

JAN-APR 48 N

MST	MAY					JUN					JUL					AUG				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30		
0700	.38	.40	.41	.42	.43	.44	.45	.45	.45	.45	.45	.44	.41	.43	.42	.41	.40	.39		
	512	534	552	567	579	589	596	599	600	598	594	587	579	589	557	543	528	512		
15	.42	.44	.45	.46	.47	.48	.49	.49	.49	.49	.49	.48	.46	.47	.46	.45	.44	.43		
	566	587	605	620	631	640	647	650	651	649	645	638	630	620	609	596	581	565		
30	.46	.48	.49	.50	.51	.52	.53	.53	.53	.53	.52	.52	.51	.51	.50	.49	.48	.47		
	619	639	657	671	682	691	698	700	701	699	695	689	681	671	660	647	633	617		
45	.50	.51	.53	.54	.55	.56	.56	.56	.57	.56	.56	.56	.55	.55	.54	.53	.52	.50		
	670	690	707	721	732	740	747	749	749	747	743	737	730	720	709	697	683	668		
0800	.54	.55	.56	.58	.58	.59	.60	.60	.60	.60	.60	.59	.59	.58	.57	.56	.55	.54		
	720	739	755	769	780	788	794	796	796	795	791	785	777	768	757	745	732	717		
15	.57	.59	.60	.61	.62	.63	.63	.63	.64	.63	.63	.63	.62	.62	.61	.60	.59	.58		
	767	786	802	815	825	833	839	842	842	840	836	830	823	814	804	792	779	765		
30	.60	.62	.63	.64	.65	.66	.66	.67	.67	.67	.66	.66	.66	.65	.64	.63	.62	.61		
	813	831	847	859	869	877	883	885	885	883	880	874	867	859	849	837	825	811		
45	.64	.65	.66	.67	.68	.69	.70	.70	.70	.70	.70	.69	.69	.68	.67	.66	.65	.64		
	856	874	889	901	911	918	924	926	927	925	921	916	909	901	891	880	868	854		
0900	.67	.68	.69	.70	.71	.72	.72	.73	.73	.73	.73	.72	.72	.71	.70	.69	.69	.67		
	897	914	929	941	950	958	963	965	965	964	960	955	948	941	931	921	909	896		
15	.70	.71	.72	.73	.74	.75	.75	.75	.76	.76	.75	.75	.75	.74	.73	.72	.71	.70		
	935	952	966	978	987	994	+000	+002	+002	+000	997	992	985	978	969	959	947	934		
30	.72	.74	.75	.76	.77	.77	.78	.78	.78	.78	.78	.78	.77	.77	.76	.75	.74	.73		
	970	987	+001	+012	+021	+028	+033	+036	+036	+034	+031	+027	+021	+013	+004	994	983	970		
45	.75	.76	.77	.78	.79	.80	.80	.80	.80	.80	.80	.80	.80	.79	.78	.78	.77	.76		
	+003	+019	+032	+044	+052	+059	+064	+067	+067	+066	+063	+058	+053	+045	+037	+027	+016	+004		

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

TABLE B-1 SOLAR PARAMETERS COS Z
XO (W/M**2.)

MAY-AUG 48 N

MST	MAY					JUN					JUL					AUG								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1000	.77	.78	.79	.80	.81	.82	.82	.82	.83	.83	.82	.82	.82	.81	.81	.80	.79	.78	.77	.75	.74	.72	.71	.69
	.032	.048	.061	.072	.081	.087	.092	.095	.095	.094	.091	.087	.082	.075	.057	.057	.046	.034	.018	.003	.987	.969	.950	.930
15	.79	.80	.81	.82	.83	.84	.84	.84	.85	.85	.84	.84	.84	.83	.83	.82	.81	.80	.79	.77	.75	.75	.73	.71
	.058	.073	.086	.097	.106	.112	.117	.120	.120	.119	.117	.113	.103	.101	.093	.084	.073	.062	.046	.031	.015	.997	.978	.957
30	.80	.82	.83	.84	.85	.85	.86	.86	.86	.86	.86	.86	.86	.85	.85	.84	.83	.82	.80	.75	.73	.76	.75	.73
	.080	.095	.108	.119	.127	.134	.139	.142	.142	.142	.139	.136	.131	.124	.117	.108	.097	.086	.070	.055	.039	.021	.002	.981
45	.82	.83	.84	.85	.86	.87	.87	.87	.88	.88	.88	.87	.87	.86	.85	.85	.84	.83	.82	.81	.79	.78	.76	.75
	.099	.114	.127	.138	.146	.152	.158	.160	.161	.161	.159	.155	.150	.144	.137	.128	.118	.107	.091	.073	.053	.042	.023	.002
1100	.83	.84	.85	.86	.87	.88	.88	.89	.89	.89	.89	.89	.89	.88	.87	.86	.86	.85	.83	.82	.81	.79	.78	.76
	.115	.130	.142	.153	.161	.168	.173	.176	.177	.176	.175	.171	.167	.161	.154	.145	.135	.124	.108	.091	.078	.060	.040	.019
15	.84	.85	.86	.87	.88	.89	.89	.89	.90	.90	.90	.89	.89	.89	.88	.87	.87	.86	.84	.83	.82	.80	.79	.77
	.127	.142	.154	.164	.173	.179	.185	.188	.189	.189	.187	.184	.180	.174	.167	.159	.149	.138	.123	.108	.092	.074	.054	.032
30	.84	.86	.87	.88	.89	.89	.90	.90	.90	.90	.90	.90	.90	.89	.89	.88	.87	.86	.85	.84	.83	.81	.79	.78
	.135	.150	.162	.172	.181	.187	.193	.196	.198	.198	.196	.194	.190	.184	.173	.169	.160	.149	.133	.113	.102	.084	.064	.042
45	.85	.86	.87	.88	.89	.90	.90	.91	.91	.91	.91	.91	.90	.90	.89	.89	.88	.87	.86	.84	.83	.82	.80	.78
	.140	.154	.167	.177	.185	.192	.198	.201	.203	.203	.202	.200	.193	.191	.184	.176	.167	.156	.140	.125	.109	.090	.070	.048
1200	.85	.86	.87	.88	.89	.90	.90	.91	.91	.91	.91	.91	.91	.90	.90	.89	.88	.87	.86	.85	.83	.82	.80	.78
	.141	.155	.167	.178	.186	.193	.199	.203	.205	.205	.205	.202	.199	.194	.187	.179	.170	.159	.143	.123	.112	.093	.072	.050
15	.85	.86	.87	.88	.89	.89	.90	.90	.91	.91	.91	.91	.91	.90	.90	.89	.88	.87	.86	.85	.83	.82	.80	.78
	.138	.153	.165	.175	.184	.191	.197	.201	.203	.204	.203	.201	.193	.193	.187	.179	.170	.159	.143	.123	.111	.092	.071	.048
30	.84	.85	.87	.87	.88	.89	.90	.90	.90	.91	.91	.91	.90	.90	.90	.89	.88	.87	.86	.85	.83	.81	.80	.78
	.132	.146	.158	.169	.178	.185	.192	.195	.198	.199	.199	.197	.194	.189	.183	.175	.166	.155	.139	.124	.107	.087	.066	.043
45	.83	.85	.86	.87	.88	.88	.89	.89	.90	.90	.90	.90	.90	.89	.89	.88	.87	.86	.85	.83	.82	.81	.79	.77
	.122	.136	.148	.159	.168	.175	.182	.187	.189	.191	.191	.189	.186	.182	.176	.168	.159	.147	.131	.116	.090	.079	.057	.033

TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/MV*2.) ... SIGNIFIES COS Z =1. ADD 1000 TO VALUES PRECEDED BY .

MST	MAY					JUN					JUL					AUG									
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30							
1300	.82	.84	.85	.86	.87	.87	.88	.88	.89	.89	.89	.89	.89	.88	.88	.89	.87	.87	.86	.84	.83	.81	.80	.78	.76
	*108	*122	*135	*146	*155	*162	*170	*174	*177	*179	*179	*178	*175	*171	*165	*157	*148	*136	*120	*103	*87	*67	*045	*020	
15	.81	.82	.83	.84	.85	.86	.87	.87	.88	.88	.88	.88	.88	.87	.87	.87	.86	.85	.84	.83	.82	.80	.79	.77	.75
	*091	*105	*118	*129	*138	*146	*154	*158	*162	*164	*164	*163	*160	*150	*150	*143	*133	*122	*105	*083	*71	*051	*028	*004	
30	.80	.81	.82	.83	.84	.85	.85	.86	.86	.86	.87	.87	.86	.86	.86	.85	.84	.83	.82	.80	.79	.77	.75	.73	.73
	*070	*085	*097	*109	*118	*126	*134	*139	*143	*145	*146	*145	*143	*138	*133	*125	*115	*104	*087	*071	*052	*032	*009	983	
45	.78	.79	.80	.81	.82	.83	.84	.84	.85	.85	.85	.85	.85	.84	.84	.83	.83	.82	.80	.79	.77	.75	.74	.71	.71
	*046	*061	*074	*085	*095	*103	*112	*117	*121	*123	*124	*124	*121	*117	*112	*104	*094	*083	*066	*040	*030	*009	985	960	
1400	.76	.77	.78	.79	.80	.81	.82	.82	.83	.83	.83	.83	.83	.83	.83	.82	.81	.81	.80	.78	.77	.75	.73	.72	.69
	*019	*033	*047	*058	*069	*077	*086	*092	*096	*099	*100	*099	*097	*093	*087	*080	*070	*058	*041	*024	*004	983	959	932	
15	.73	.75	.76	.77	.78	.79	.80	.80	.81	.81	.81	.81	.81	.81	.81	.80	.79	.79	.78	.76	.75	.73	.71	.69	.67
	988	*003	*016	*028	*039	*048	*057	*063	*068	*071	*072	*072	*070	*066	*060	*052	*042	*030	*013	995	975	953	929	902	
30	.71	.72	.73	.75	.75	.76	.77	.78	.78	.79	.79	.79	.79	.78	.78	.77	.76	.75	.74	.72	.71	.69	.67	.65	.65
	954	969	983	996	*007	*016	*026	*032	*037	*040	*042	*041	*040	*038	*030	*022	*012	999	981	964	943	921	896	868	
45	.68	.70	.71	.72	.73	.74	.75	.75	.76	.76	.76	.76	.76	.76	.75	.75	.74	.73	.71	.70	.68	.66	.64	.62	.62
	918	933	947	960	971	981	991	998	*003	*006	*008	*008	*006	*003	997	989	978	966	947	929	908	885	859	831	
1500	.65	.67	.68	.69	.70	.71	.72	.72	.73	.73	.73	.73	.73	.73	.73	.72	.71	.70	.68	.67	.65	.63	.61	.59	.59
	878	894	909	922	933	944	954	961	966	970	972	972	971	967	961	953	942	929	910	892	870	847	820	792	
15	.62	.64	.65	.66	.67	.68	.69	.69	.70	.70	.71	.71	.71	.70	.70	.69	.68	.67	.65	.64	.62	.60	.58	.56	.56
	836	853	867	881	893	904	915	922	928	932	934	934	932	929	922	914	903	890	871	852	830	806	779	749	
30	.59	.60	.62	.63	.64	.65	.66	.66	.67	.67	.67	.68	.67	.67	.67	.66	.65	.64	.62	.61	.59	.57	.55	.52	.52
	792	809	824	838	850	861	873	880	886	891	893	893	892	888	882	873	862	848	829	803	787	762	735	705	
45	.55	.57	.58	.59	.60	.61	.62	.63	.64	.64	.64	.64	.64	.64	.63	.63	.62	.61	.59	.57	.55	.54	.51	.49	.49
	745	762	778	792	805	817	829	837	843	847	850	851	849	845	839	830	819	805	784	764	742	716	688	658	

TABLE B-1 SOLAR PARAMETERS COS Z
 MAY-AUG 48 N
 *** SIGNIFIES COS Z = 1.
 ADD 1000 TO VALUES PRECEDED BY .

MST	DATE											
	MAY				JUN				JUL			
	5	10	15	20	25	30	5	10	15	20	25	30
1900	.03	.05	.06	.08	.09	.11	.12	.13	.14	.14	.14	.14
	039	062	085	105	124	141	158	170	179	185	189	189
15	.00	.01	.02	.04	.05	.07	.08	.09	.10	.10	.10	.10
	000	009	032	053	072	089	107	119	128	134	138	138
30	.00	.00	.00	.00	.02	.03	.04	.05	.06	.06	.07	.07
	000	000	000	002	021	039	057	069	078	084	083	088
45	.00	.00	.00	.00	.00	.00	.01	.02	.02	.03	.03	.03
	000	000	000	000	000	000	008	020	029	036	039	039

TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M=2.) ... SIGNIFIES COS Z =1. ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					DATE					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
0800	.43	.41	.39	.37	.35	.33	.31	.28	.26	.24	.22	.19	.16	.14	.12	.10	.08	.06	.05	.03	.03	.02	.01	.01	
	577	554	529	504	477	449	421	391	360	329	298	266	227	196	169	140	114	090	069	050	035	024	016	012	
15	.47	.45	.43	.41	.39	.37	.34	.32	.30	.27	.25	.23	.20	.18	.15	.13	.12	.10	.08	.07	.06	.05	.05	.04	
	627	603	579	553	527	499	470	440	409	378	346	314	276	246	216	189	161	137	116	096	083	072	064	061	
30	.50	.48	.46	.44	.42	.40	.38	.35	.33	.31	.28	.26	.23	.21	.19	.17	.15	.13	.11	.10	.09	.08	.08	.08	
	674	651	626	601	574	546	517	486	455	424	392	360	322	291	261	233	206	182	161	143	129	118	111	108	
45	.53	.52	.50	.48	.45	.43	.41	.39	.36	.34	.31	.29	.26	.24	.22	.20	.18	.16	.15	.13	.12	.11	.11	.11	
	719	696	671	646	618	590	561	530	499	467	435	403	364	332	303	275	249	225	204	185	172	161	155	152	
0900	.57	.55	.53	.51	.48	.46	.44	.42	.39	.37	.34	.32	.29	.27	.25	.22	.21	.19	.17	.15	.15	.14	.14	.14	
	762	738	714	688	660	632	602	572	540	508	475	443	404	373	343	315	289	265	244	227	213	202	196	194	
15	.59	.58	.56	.54	.51	.49	.47	.44	.42	.40	.37	.35	.32	.29	.27	.25	.23	.22	.20	.19	.18	.17	.17	.17	
	802	778	753	727	700	671	641	610	578	546	513	480	442	410	380	352	326	302	282	264	251	241	235	234	
30	.62	.60	.58	.56	.54	.52	.49	.47	.44	.42	.40	.37	.34	.32	.30	.28	.26	.24	.22	.21	.20	.20	.19	.19	
	838	815	790	763	736	707	676	645	613	580	547	514	476	444	414	386	360	336	316	297	286	276	271	270	
45	.65	.63	.61	.59	.56	.54	.52	.49	.47	.44	.42	.39	.36	.34	.32	.30	.28	.26	.25	.23	.23	.22	.22	.22	
	872	849	823	797	769	739	709	677	645	612	578	545	506	475	445	417	391	368	348	331	316	309	304	304	
1000	.67	.65	.63	.61	.59	.56	.54	.51	.49	.46	.44	.41	.38	.36	.34	.32	.30	.28	.27	.25	.25	.24	.24	.24	
	903	879	854	827	798	768	738	706	673	640	606	573	534	502	472	444	419	396	376	360	347	339	334	334	
15	.69	.67	.65	.63	.61	.58	.56	.53	.51	.48	.46	.43	.40	.38	.35	.33	.32	.30	.28	.27	.26	.26	.26	.26	
	930	906	880	853	824	794	763	731	698	664	630	597	559	526	496	468	443	420	401	385	373	365	361	362	
30	.71	.69	.67	.64	.62	.60	.57	.55	.52	.50	.47	.44	.42	.39	.37	.35	.33	.31	.30	.29	.28	.27	.27	.27	
	954	930	904	876	847	816	785	752	719	685	651	618	578	547	517	489	464	441	422	407	395	388	385	386	
45	.72	.70	.68	.66	.64	.61	.59	.56	.53	.51	.48	.46	.43	.40	.38	.36	.34	.33	.31	.30	.29	.29	.29	.29	
	974	950	923	895	866	835	803	770	736	702	668	634	595	564	534	506	481	459	440	425	414	407	405	406	

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

SOLAR PARAMETERS
COS Z
XO (W/M**2.)

TABLE B-1

48 N

SEP-DEC

MST	SEP					OCT					DATE					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1100	.74	.71	.69	.67	.65	.62	.60	.57	.54	.52	.49	.47	.44	.41	.39	.37	.35	.34	.32	.31	.30	.30	.30	.30	
	991	966	939	911	881	850	817	784	750	716	681	648	605	577	547	520	495	473	455	440	430	423	421	424	
15	.75	.72	.70	.68	.65	.63	.60	.58	.55	.52	.50	.47	.44	.42	.40	.38	.36	.34	.33	.32	.31	.31	.31	.31	
	*004	979	951	923	892	861	828	794	760	725	691	657	617	585	557	529	505	484	466	452	442	436	434	437	
30	.75	.73	.71	.68	.66	.64	.61	.58	.56	.53	.50	.48	.45	.42	.40	.38	.36	.35	.34	.33	.32	.31	.31	.32	
	*013	987	960	931	900	868	834	800	766	731	696	662	623	592	562	535	511	490	473	457	450	444	443	447	
45	.76	.73	.71	.69	.66	.64	.61	.58	.56	.53	.50	.48	.45	.43	.40	.38	.37	.35	.34	.33	.32	.32	.32	.32	
	*019	992	964	935	903	871	837	803	768	733	698	664	624	593	564	538	514	493	476	463	454	449	449	453	
1200	.76	.74	.71	.69	.66	.64	.61	.58	.56	.53	.50	.48	.45	.42	.40	.38	.37	.35	.34	.33	.32	.32	.32	.32	
	*020	994	965	935	903	870	836	801	766	731	696	662	622	591	562	536	513	492	476	463	455	451	451	456	
15	.76	.73	.71	.69	.66	.63	.61	.58	.55	.52	.50	.47	.44	.42	.40	.38	.36	.35	.34	.33	.32	.32	.32	.32	
	*018	991	962	931	899	865	831	796	760	725	690	655	616	585	557	531	508	488	472	460	452	448	449	454	
30	.75	.73	.70	.68	.65	.63	.60	.57	.54	.52	.49	.46	.44	.41	.39	.37	.36	.34	.33	.32	.32	.31	.31	.32	
	*012	984	955	923	891	857	822	786	751	715	680	645	606	576	547	521	499	480	464	453	445	442	444	449	
45	.74	.72	.70	.67	.65	.62	.59	.56	.53	.51	.48	.45	.43	.40	.38	.36	.35	.33	.32	.31	.31	.31	.31	.31	
	*002	974	944	912	879	844	809	773	737	701	666	632	593	562	534	509	486	468	453	442	435	432	434	441	
1300	.73	.71	.69	.66	.63	.61	.58	.55	.52	.49	.47	.44	.41	.39	.37	.35	.33	.32	.31	.30	.30	.30	.30	.30	
	988	960	929	897	863	828	792	756	720	684	648	614	575	545	517	492	470	452	437	427	421	419	421	428	
15	.72	.70	.67	.65	.62	.59	.56	.54	.51	.48	.45	.43	.40	.38	.35	.34	.32	.31	.30	.29	.29	.28	.29	.29	
	971	942	911	878	844	808	772	735	699	663	627	593	554	524	496	472	450	433	419	409	403	402	405	412	
30	.71	.68	.66	.63	.60	.57	.55	.52	.49	.46	.43	.41	.39	.36	.34	.32	.30	.29	.28	.27	.27	.27	.27	.28	
	950	920	888	855	820	785	748	711	674	638	602	568	530	500	472	448	427	410	397	387	382	381	385	393	
45	.69	.66	.64	.61	.58	.55	.53	.50	.47	.44	.41	.39	.36	.34	.32	.30	.29	.27	.26	.26	.25	.25	.26	.26	
	926	895	863	829	794	757	721	683	646	610	574	540	501	472	445	421	401	384	371	362	353	357	361	370	

... SIGNIFIES COS Z = 1.
 ADD 1000 TO VALUES PRECEDED BY *

TABLE B-1 SOLAR PARAMETERS COS Z
 X0 (W/M**2.)

SEP-DEC 48 N

MST	SEP					OCT					NOV					DEC								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1400	.67	.64	.62	.59	.56	.53	.50	.47	.45	.42	.39	.37	.34	.32	.30	.28	.26	.25	.24	.21	.23	.23	.24	.24
	898	867	834	799	764	727	690	652	615	578	543	506	470	441	414	391	371	354	342	334	330	330	335	343
15	.64	.62	.59	.56	.54	.51	.48	.45	.42	.39	.37	.34	.31	.29	.27	.26	.24	.23	.22	.21	.21	.21	.22	.22
	866	835	801	766	730	693	655	618	580	543	508	474	436	407	360	357	338	322	310	302	295	300	305	314
30	.62	.59	.57	.54	.51	.48	.45	.42	.39	.37	.34	.31	.28	.26	.25	.23	.22	.20	.20	.19	.19	.19	.19	.20
	832	800	766	730	694	656	618	580	542	505	470	436	398	369	343	321	302	286	275	265	255	266	272	281
45	.59	.56	.54	.51	.48	.45	.42	.39	.36	.34	.31	.28	.25	.23	.22	.20	.19	.18	.17	.15	.15	.16	.17	.17
	795	762	727	691	654	616	578	539	501	465	429	395	358	329	304	281	263	248	237	230	230	230	235	245
1500	.56	.53	.51	.48	.45	.42	.39	.36	.33	.30	.28	.25	.23	.21	.19	.17	.16	.15	.14	.14	.13	.14	.14	.15
	754	721	686	649	612	573	534	496	458	421	385	352	314	286	261	239	221	207	196	193	188	190	197	207
15	.53	.50	.47	.45	.42	.39	.36	.33	.30	.27	.25	.22	.20	.19	.17	.15	.14	.13	.12	.11	.10	.11	.11	.12
	711	677	642	605	566	528	489	450	412	375	339	306	268	241	216	195	177	163	153	147	146	148	155	166
30	.49	.47	.44	.41	.38	.35	.32	.29	.26	.24	.21	.19	.16	.14	.12	.11	.09	.08	.08	.07	.07	.07	.08	.09
	666	631	595	557	519	480	440	401	363	326	291	257	221	193	169	148	130	117	108	102	101	104	111	122
45	.46	.43	.40	.37	.34	.31	.28	.26	.23	.20	.17	.15	.12	.10	.09	.07	.06	.05	.04	.04	.04	.04	.05	.05
	618	583	546	508	469	430	390	351	313	275	240	207	170	143	119	099	082	069	060	055	054	058	065	076
1600	.42	.39	.37	.34	.31	.28	.25	.22	.19	.16	.14	.11	.09	.07	.05	.03	.02	.01	.01	.01	.00	.01	.01	.02
	568	532	495	457	417	377	338	298	260	223	188	155	116	091	068	048	031	019	010	003	005	009	017	028
15	.38	.36	.33	.30	.27	.24	.21	.18	.15	.12	.10	.07	.05	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00
	516	480	442	403	364	323	283	244	205	168	133	101	065	038	015	000	000	000	000	000	000	000	000	000
30	.34	.32	.29	.26	.23	.20	.17	.14	.11	.09	.06	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	463	426	388	348	308	268	228	188	150	113	078	045	009	000	000	000	000	000	000	000	000	000	000	000
45	.30	.27	.25	.22	.19	.15	.12	.10	.07	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	408	371	332	292	252	211	171	131	092	056	021	000	000	000	000	000	000	000	000	000	000	000	000	000

SEP-DEC 48 N TABLE B-1 SOLAR PARAMETERS COS Z ** SIGNIFIES COS Z = 1.
 ADD 1000 TO VALUES PRECEDED BY *

MST	DATE												NOV												DEC											
	SEP				OCT				DATE				NOV				DEC				NOV				DEC											
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30						
1700	.26	.23	.20	.17	.14	.11	.08	.05	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
	352	314	275	235	194	153	112	073	034	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000						
15	.22	.19	.16	.13	.10	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
	295	256	217	176	135	094	054	014	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000						
30	.18	.15	.12	.09	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
	237	198	158	117	076	035	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000						
45	.13	.10	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
	178	139	099	058	017	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000						
1800	.09	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
	120	080	040	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000						
15	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
	061	022	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000						
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
	003	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000						
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000						

*** SIGNIFIES COS Z =1.
ADD 1000 TO VALUES PRECEDED BY -

SOLAR PARAMETERS
X0 (W/M**2.)

COS Z

TABLE B-1

48 N

SEP-DEC

MST	JAN					FEB					MAR					APR								
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30					
0800	.11	.11	.11	.12	.13	.14	.15	.17	.18	.20	.23	.25	.29	.31	.34	.36	.39	.42	.45	.47	.49	.51	.53	.54
	158	158	161	167	178	191	209	234	258	285	315	346	393	434	468	503	537	570	608	633	665	691	714	734
	.15	.15	.15	.16	.16	.17	.18	.19	.21	.23	.25	.27	.29	.33	.36	.38	.41	.44	.46	.49	.51	.53	.55	.57
15	216	216	219	226	237	252	270	295	320	347	377	408	462	490	530	565	599	631	668	693	724	749	771	791
	.30	.19	.20	.20	.21	.22	.23	.25	.27	.29	.31	.34	.38	.40	.43	.45	.48	.50	.53	.55	.57	.59	.61	.63
	271	271	275	283	295	310	328	354	379	407	437	468	522	556	590	624	657	690	726	754	781	805	826	845
45	.23	.23	.23	.24	.25	.26	.27	.29	.31	.33	.35	.38	.42	.44	.47	.49	.52	.54	.57	.59	.61	.63	.65	.66
	324	324	329	337	349	365	384	411	436	464	494	526	579	613	647	681	713	745	781	803	834	857	878	896
	.0900	.26	.27	.27	.28	.28	.30	.31	.33	.35	.37	.39	.42	.46	.48	.51	.53	.56	.58	.61	.63	.65	.67	.69
15	373	375	380	389	401	418	437	464	490	519	549	581	634	667	701	734	767	798	833	860	885	907	927	945
	.30	.30	.30	.31	.32	.33	.35	.37	.39	.41	.43	.45	.49	.52	.54	.57	.59	.62	.64	.67	.69	.70	.72	.73
	420	422	428	437	450	467	487	515	541	570	600	632	685	719	752	785	817	847	881	903	932	954	973	990
30	.33	.33	.33	.34	.35	.36	.38	.40	.42	.44	.46	.49	.53	.55	.58	.60	.63	.65	.68	.70	.72	.74	.75	.77
	463	466	472	482	496	513	534	563	589	618	648	680	733	766	799	832	863	893	927	952	976	997	1016	1032
	.45	.36	.36	.36	.37	.38	.39	.41	.43	.45	.47	.50	.52	.56	.58	.61	.63	.66	.68	.71	.73	.75	.76	.78
1000	503	506	513	524	538	556	577	607	633	662	693	725	778	811	843	875	906	935	968	993	1015	1037	1055	1071
	.38	.38	.39	.40	.41	.42	.44	.46	.48	.50	.52	.55	.59	.61	.64	.66	.69	.71	.74	.76	.77	.79	.81	.82
	540	543	551	562	577	596	617	647	674	703	734	766	818	851	883	915	945	974	1006	1031	1053	1073	1091	1106
15	.40	.41	.41	.42	.43	.45	.46	.49	.51	.53	.55	.58	.61	.64	.66	.69	.71	.74	.76	.78	.80	.81	.83	.84
	572	576	584	596	612	631	653	683	711	740	771	803	855	888	920	951	980	1009	1040	1064	1085	1105	1122	1137
	.30	.42	.43	.43	.44	.46	.47	.49	.51	.53	.55	.57	.60	.64	.66	.69	.71	.74	.76	.78	.80	.82	.84	.85
45	601	605	614	627	643	663	685	716	744	773	804	836	888	920	952	982	1011	1039	1070	1093	1113	1133	1150	1164
	.44	.45	.45	.46	.47	.49	.51	.53	.55	.57	.60	.62	.66	.68	.71	.73	.75	.78	.80	.82	.84	.85	.87	.88
	625	630	640	653	670	690	713	744	773	802	833	865	917	948	980	1010	1038	1065	1095	1119	1139	1157	1173	1187

JAN-APR 38 N TABLE B-1 SOLAR PARAMETERS COS Z ** SIGNIFIES COS Z = 1.
 X0 (W/M**2.) ADD 1000 TO VALUES PRECEDED BY *

MST	DATE																							
	JAN				FEB				MAR				APR											
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30					
1100	.46	.46	.47	.48	.49	.51	.52	.55	.57	.59	.61	.64	.65	.70	.72	.75	.77	.79	.82	.84	.85	.87	.88	.89
	646	651	662	676	693	714	737	769	797	827	858	890	941	972	003	033	061	087	*117*	133	153	176	192	206
15	.47	.47	.48	.49	.50	.52	.54	.56	.58	.60	.63	.65	.69	.71	.74	.76	.78	.81	.83	.85	.85	.88	.89	.90
	662	668	679	694	712	733	757	789	817	847	878	910	961	992	022	051	079	105	*133*	155	174	192	207	220
30	.48	.48	.49	.50	.51	.53	.55	.57	.59	.62	.64	.66	.70	.73	.75	.77	.79	.81	.84	.85	.87	.89	.90	.91
	674	680	692	707	726	748	772	804	833	863	894	926	976	007	037	065	092	118	*146*	167	186	203	217	230
45	.48	.49	.50	.51	.52	.54	.56	.58	.60	.62	.65	.67	.71	.73	.76	.78	.80	.82	.84	.85	.88	.89	.90	.92
	681	689	701	717	736	758	783	815	844	874	905	937	987	017	047	075	101	126	*153*	174	193	209	223	236
1200	.48	.49	.50	.51	.52	.54	.56	.58	.61	.63	.65	.68	.71	.74	.76	.78	.80	.82	.85	.85	.88	.89	.91	.92
	685	692	705	722	741	764	789	822	851	881	912	943	993	023	052	080	106	130	*157*	177	195	211	225	237
15	.48	.49	.50	.51	.53	.54	.56	.59	.61	.63	.65	.68	.71	.74	.76	.78	.80	.82	.84	.85	.88	.89	.90	.92
	683	692	705	722	742	765	791	824	853	883	914	945	994	024	052	080	105	129	*155*	175	193	209	222	234
30	.48	.49	.50	.51	.52	.54	.56	.58	.61	.63	.65	.67	.71	.74	.76	.78	.80	.82	.84	.85	.87	.89	.90	.91
	678	686	701	718	739	762	788	821	850	881	911	942	991	020	048	075	100	124	*149*	163	181	201	215	227
45	.47	.48	.49	.50	.52	.53	.55	.58	.60	.62	.65	.67	.71	.73	.75	.77	.79	.81	.83	.85	.85	.88	.89	.90
	668	677	692	710	731	754	780	814	843	873	904	935	983	012	040	066	091	114	*139*	159	175	190	203	215
1300	.46	.47	.48	.49	.51	.53	.55	.57	.59	.61	.64	.66	.70	.72	.74	.76	.78	.80	.82	.81	.85	.87	.88	.89
	654	663	678	697	718	742	768	802	832	862	892	923	970	000	026	052	077	099	*124*	142	159	174	187	199
15	.45	.46	.47	.48	.50	.51	.53	.56	.58	.60	.62	.65	.63	.71	.73	.75	.77	.79	.81	.82	.84	.85	.86	.87
	635	645	661	680	701	726	752	786	815	846	876	906	953	982	009	034	058	080	*104*	122	139	154	167	178
30	.43	.44	.45	.47	.48	.50	.52	.54	.57	.59	.61	.63	.67	.69	.71	.73	.75	.77	.79	.81	.82	.83	.84	.86
	612	623	639	658	680	705	732	765	795	825	855	885	932	960	986	011	035	056	*080*	093	114	129	142	154
45	.41	.42	.43	.45	.46	.48	.50	.53	.55	.57	.59	.62	.65	.67	.69	.71	.73	.75	.77	.78	.80	.81	.82	.83
	585	596	613	633	655	680	707	741	770	800	830	860	906	933	959	984	007	029	*052*	073	088	100	114	125

JAN-APR 38 N TABLE B-1 SOLAR PARAMETERS COS Z ... SIGNIFIES COS Z = 1.
 X0 (W//H*2.) ADD 1000 TO VALUES PRECEDED BY *

MST	JAN					FEB					MAR					APR				
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1400	.39	.40	.41	.43	.44	.46	.48	.51	.53	.55	.57	.59	.63	.65	.67	.69	.71	.73	.75	.76
	555	566	583	603	626	651	677	711	741	771	800	830	875	903	928	953	976	997	.020	.037
15	.37	.38	.39	.40	.42	.44	.46	.48	.50	.53	.55	.57	.60	.63	.65	.66	.68	.70	.72	.73
	520	532	549	569	592	617	644	678	708	737	767	795	841	868	893	917	940	961	.984	.001
30	.34	.35	.36	.38	.39	.41	.43	.46	.48	.50	.52	.54	.58	.60	.62	.64	.65	.67	.69	.70
	482	494	511	532	555	580	607	641	670	700	729	758	803	829	854	878	900	921	.943	.961
45	.31	.32	.33	.35	.36	.38	.40	.43	.45	.47	.49	.51	.55	.57	.59	.60	.62	.64	.66	.67
	440	452	470	491	514	540	567	600	629	659	688	716	760	786	811	835	857	877	.900	.917
1500	.28	.29	.30	.32	.33	.35	.37	.40	.42	.44	.46	.48	.51	.53	.55	.57	.59	.60	.62	.64
	395	407	426	447	470	495	522	556	585	614	642	671	714	740	765	788	809	830	.852	.863
15	.25	.25	.27	.28	.30	.32	.34	.36	.38	.40	.42	.45	.48	.50	.52	.53	.55	.57	.59	.60
	346	359	378	399	422	448	474	508	537	565	594	622	665	690	715	738	759	779	.802	.813
30	.21	.22	.23	.25	.26	.28	.30	.32	.35	.37	.39	.41	.44	.46	.48	.50	.51	.53	.55	.56
	295	308	327	348	371	397	424	457	485	514	542	570	612	637	661	684	705	726	.748	.765
45	.17	.18	.19	.21	.23	.24	.26	.29	.31	.33	.35	.37	.40	.42	.44	.46	.47	.49	.51	.52
	241	254	273	294	318	343	370	403	431	459	487	514	557	581	605	628	649	669	.691	.703
1600	.13	.14	.15	.17	.19	.20	.22	.25	.27	.29	.31	.33	.36	.38	.40	.41	.43	.44	.46	.48
	185	198	217	238	262	287	313	346	374	402	429	456	498	523	546	569	590	610	.632	.650
15	.09	.10	.11	.13	.14	.16	.18	.20	.22	.24	.26	.28	.31	.33	.35	.37	.38	.40	.42	.43
	126	139	158	179	203	228	254	286	314	342	369	396	437	461	485	507	528	548	.571	.583
30	.05	.06	.07	.08	.10	.12	.14	.16	.18	.20	.22	.24	.27	.29	.30	.32	.34	.35	.37	.39
	065	078	097	119	142	167	193	225	252	279	306	333	374	398	421	443	464	484	.507	.525
45	.00	.01	.03	.04	.06	.07	.09	.11	.13	.15	.17	.19	.22	.24	.26	.27	.29	.31	.32	.34
	003	016	035	056	079	104	129	161	188	215	242	268	308	332	355	378	399	419	.442	.460

JAN-APR 38 N TABLE B-1 SOLAR PARAMETERS COS Z *** SIGNIFIES COS Z = 1.
 XO (W/M*2.) ADD 1000 TO VALUES PRECEDED BY *

MST	DATE												APR												
	JAN						FEB						MAR						APR						
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1700	.00	.00	.00	.00	.01	.03	.05	.07	.09	.11	.13	.14	.17	.19	.21	.23	.24	.26	.27	.29	.30	.32	.33	.34	.375
	000	000	000	000	015	039	064	096	122	149	175	201	241	265	288	310	331	352	375	393	411	429	445	462	
15	.00	.00	.00	.00	.00	.00	.00	.02	.04	.06	.08	.10	.12	.14	.16	.18	.19	.21	.22	.24	.25	.27	.28	.29	.307
	000	000	000	000	000	000	000	029	055	081	108	133	173	196	219	241	263	283	307	325	344	362	379	396	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.03	.05	.07	.09	.11	.12	.14	.16	.17	.19	.20	.22	.23	.24	.238
	000	000	000	000	000	000	000	000	000	013	038	064	103	127	150	172	193	214	238	257	276	294	312	329	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.04	.06	.07	.09	.10	.12	.14	.15	.17	.18	.19	.168
	000	000	000	000	000	000	000	000	000	000	000	000	033	056	079	101	123	143	168	183	207	226	244	262	
1800	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.02	.04	.05	.07	.09	.10	.12	.13	.14	.098
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	008	030	052	073	098	113	138	157	176	195	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.01	.05	.07	.08	.09	.027
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	002	027	043	068	088	108	127	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.03	.05	.000
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	020	040	060	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.000
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	

*** SIGNIFIES COS Z =1.
ADD 1000 TO VALUES PRECEDED BY .

SOLAR PARAMETERS COS Z
XO (W/M**2.)

TABLE B-1

38 N

JAN-APR

MST	MAY					JUN					JUL					AUG				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30		
0700	.38	.39	.40	.41	.42	.43	.43	.43	.43	.43	.43	.42	.41	.41	.40	.39	.38	.37	.36	.35
	507	524	539	551	560	566	570	571	570	567	562	556	543	539	529	517	505	492	476	462
15	.42	.44	.45	.46	.47	.47	.47	.48	.48	.47	.47	.47	.46	.45	.45	.44	.43	.42	.41	.39
	571	587	601	612	621	627	631	632	630	627	623	616	603	600	590	579	567	555	539	525
30	.47	.48	.49	.50	.51	.52	.52	.52	.52	.52	.52	.51	.50	.50	.49	.48	.47	.46	.45	.44
	633	649	662	673	681	686	690	691	689	686	682	675	668	659	650	639	628	616	601	588
45	.52	.53	.54	.55	.55	.56	.56	.56	.56	.56	.56	.55	.55	.54	.54	.53	.52	.51	.50	.49
	693	708	721	731	739	744	747	748	747	744	739	733	726	717	708	698	687	676	662	649
0800	.56	.57	.58	.59	.60	.60	.60	.61	.61	.60	.60	.60	.59	.58	.58	.57	.56	.55	.54	.53
	751	766	778	788	795	800	803	803	802	799	794	789	782	774	765	755	745	734	720	708
15	.60	.61	.62	.63	.64	.64	.64	.65	.65	.64	.64	.64	.63	.63	.62	.61	.60	.60	.58	.57
	807	822	833	843	849	854	857	857	855	852	848	842	836	828	820	811	801	790	777	765
30	.64	.65	.66	.67	.68	.68	.68	.68	.68	.68	.68	.68	.67	.67	.66	.65	.64	.64	.62	.62
	861	875	886	895	901	905	908	908	907	904	899	894	888	880	872	863	854	844	831	820
45	.68	.69	.70	.71	.71	.72	.72	.72	.72	.72	.72	.71	.71	.70	.70	.69	.68	.67	.66	.65
	912	925	936	944	950	954	957	957	955	952	948	943	937	930	922	914	905	895	883	872
0900	.71	.72	.73	.74	.75	.75	.75	.76	.76	.75	.75	.75	.74	.74	.73	.73	.72	.71	.70	.69
	960	973	983	991	996	000	002	002	001	998	994	990	984	977	970	962	953	944	932	921
15	.75	.76	.77	.77	.78	.78	.79	.79	.79	.79	.78	.78	.78	.77	.77	.76	.75	.75	.74	.73
	005	017	027	034	040	043	045	045	044	041	038	033	029	021	014	007	998	990	978	968
30	.78	.79	.80	.80	.81	.81	.82	.82	.82	.82	.81	.81	.81	.80	.80	.79	.78	.78	.77	.76
	046	058	067	075	080	083	085	085	084	081	078	074	069	062	055	049	041	032	021	011
45	.81	.82	.83	.83	.84	.84	.84	.85	.85	.84	.84	.84	.84	.83	.83	.82	.81	.81	.80	.79
	084	096	105	112	117	120	122	122	121	118	115	111	106	100	093	087	080	071	061	051

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

TABLE B-1 SOLAR PARAMETERS COS Z
XO (K/M**2.)

MAY-AUG 38 N

MST	MAY					JUN					JUL					AUG								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30						
1000	.83	.84	.85	.86	.86	.87	.87	.87	.87	.87	.87	.87	.86	.86	.85	.85	.84	.83	.82	.82	.81	.80	.78	.77
	*119	*130	*138	*145	*150	*153	*155	*155	*154	*152	*149	*145	*140	*135	*129	*122	*115	*107	.097	.087	.076	.065	.052	.038
15	.85	.86	.87	.88	.88	.89	.89	.89	.89	.89	.89	.89	.88	.88	.88	.87	.86	.86	.85	.84	.83	.82	.81	.80
	*149	*160	*168	*175	*179	*182	*184	*184	*183	*182	*179	*175	*171	*166	*160	*154	*147	*139	*129	*120	*109	.097	.085	.071
30	.87	.88	.89	.90	.90	.91	.91	.91	.91	.91	.91	.91	.91	.90	.90	.89	.89	.88	.87	.85	.85	.84	.83	.82
	*176	*186	*194	*200	*205	*208	*210	*210	*209	*208	*205	*202	*198	*193	*185	*182	*175	*168	*158	*143	.138	.126	.113	.099
45	.89	.90	.91	.91	.92	.92	.93	.93	.93	.93	.93	.93	.92	.92	.92	.91	.90	.90	.89	.87	.87	.86	.85	.84
	*199	*208	*216	*222	*227	*230	*232	*232	*232	*230	*228	*225	*221	*217	*212	*206	*200	*192	*182	*173	.163	.151	.138	.123
1100	.90	.91	.92	.93	.93	.94	.94	.94	.94	.94	.94	.94	.94	.93	.93	.93	.92	.91	.90	.90	.89	.88	.86	.85
	*217	*226	*234	*240	*245	*248	*250	*250	*250	*249	*247	*244	*241	*237	*232	*226	*220	*213	*203	.194	.193	.171	.158	.143
15	.92	.92	.93	.94	.94	.95	.95	.95	.95	.95	.95	.95	.95	.95	.94	.94	.93	.93	.92	.91	.90	.89	.88	.86
	*231	*240	*248	*254	*258	*261	*264	*264	*264	*263	*262	*259	*256	*252	*248	*243	*236	*229	*220	.210	.200	.188	.174	.159
30	.92	.93	.94	.95	.95	.95	.96	.96	.96	.96	.96	.96	.96	.95	.95	.95	.94	.94	.93	.92	.91	.90	.88	.87
	*241	*250	*257	*263	*268	*271	*273	*274	*275	*274	*272	*270	*268	.264	.250	.255	*249	*242	*232	.223	.212	.200	.186	.170
45	.93	.94	.94	.95	.95	.96	.96	.96	.97	.97	.97	.97	.96	.96	.96	.95	.95	.94	.93	.92	.91	.90	.89	.88
	*247	*255	*263	*269	*273	*277	*279	*280	*281	*280	*279	*277	*275	.272	.268	.263	*257	.250	*240	.231	.220	.207	*193	.177
1200	.93	.94	.94	.95	.96	.96	.96	.97	.97	.97	.97	.97	.96	.96	.96	.96	.95	.94	.94	.93	.92	.90	.89	.88
	*248	*256	*264	*270	*274	*278	*281	*282	*283	*283	*282	*280	*278	.275	.271	.267	*261	.254	*244	.231	.223	.210	.196	.180
15	.93	.93	.94	.95	.95	.96	.96	.96	.97	.97	.97	.97	.96	.96	.96	.96	.95	.94	.93	.93	.92	.90	.89	.88
	*244	*253	*261	*267	*271	*275	*278	*280	*281	*281	*281	*279	*277	.274	.271	.266	*261	.254	*244	.231	.222	.209	.194	.178
30	.92	.93	.94	.94	.95	.95	.96	.96	.96	.96	.96	.96	.96	.96	.96	.95	.95	.94	.93	.92	.91	.90	.89	.87
	*237	*246	*253	*259	*264	*268	*272	*274	*275	*275	*275	*274	*272	.270	.266	.262	*256	*249	*239	.229	.217	.204	.188	.171
45	.91	.92	.93	.93	.94	.94	.95	.95	.96	.96	.96	.96	.95	.95	.95	.95	.94	.93	.92	.92	.90	.89	.88	.86
	*225	*234	*241	*248	*253	*257	*261	*263	*265	*265	*265	*265	*263	.261	.257	.253	*247	.240	*230	.220	.208	.194	.178	.160

TABLE B-1 SOLAR PARAMETERS COS Z ... SIGNIFIES COS Z = 1.
 MAY-AUG 38 N AD (W/X**2.) ADD 1000 TO VALUES PRECEDED BY .

MST	MAY					JUN					JUL					AUG								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
300	.90	.91	.92	.92	.93	.93	.94	.94	.94	.94	.95	.95	.94	.94	.94	.94	.93	.92	.91	.91	.89	.88	.87	.85
	*209	*218	*225	*232	*237	*242	*246	*248	*250	*251	*252	*251	*250	*243	*245	*240	*235	*227						
15	.88	.89	.90	.91	.91	.92	.92	.93	.93	.93	.93	.93	.92	.93	.93	.92	.92	.91	.90	.89	.88	.87	.85	.84
	*189	*198	*205	*212	*218	*222	*227	*230	*232	*234	*234	*234	*233	*231	*228	*223	*218	*210						
30	.87	.87	.88	.89	.90	.90	.91	.91	.91	.91	.92	.92	.91	.91	.91	.91	.90	.90	.89	.88	.85	.84	.82	
	*164	*173	*181	*188	*194	*199	*204	*208	*210	*212	*213	*213	*212	*210	*207	*202	*197	*189						
45	.84	.85	.86	.87	.87	.88	.89	.89	.89	.90	.90	.90	.89	.89	.89	.88	.88	.88	.87	.85	.84	.83	.82	.80
	*136	*145	*153	*160	*167	*172	*178	*181	*184	*186	*187	*188	*187	*185	*182	*178	*172	*164						
1400	.82	.83	.84	.84	.85	.86	.86	.87	.87	.87	.88	.88	.88	.87	.87	.87	.86	.85	.84	.83	.82	.81	.79	.77
	*103	*113	*121	*129	*136	*141	*147	*151	*155	*157	*159	*159	*158	*157	*154	*149	*143	*135						
15	.79	.80	.81	.82	.83	.83	.84	.84	.85	.85	.85	.85	.85	.85	.85	.84	.84	.83	.82	.81	.80	.78	.77	.75
	*067	*077	*086	*094	*101	*107	*113	*118	*121	*124	*126	*127	*126	*125	*122	*117	*111	*102						
30	.76	.77	.78	.79	.80	.80	.81	.81	.82	.82	.82	.82	.82	.82	.82	.82	.81	.80	.79	.78	.77	.75	.74	.72
	*028	*038	*047	*055	*063	*069	*076	*081	*085	*088	*090	*091	*091	*089	*085	*081	*075	*066						
45	.73	.74	.75	.76	.77	.77	.78	.78	.79	.79	.79	.79	.79	.79	.79	.79	.78	.77	.76	.75	.74	.72	.71	.69
	.984	.995	*004	*013	*021	*028	*036	*041	*045	*048	*051	*052	*052	*050	*047	*042	*035	*026						
1500	.70	.71	.72	.72	.73	.74	.75	.75	.76	.76	.76	.76	.76	.76	.76	.75	.75	.74	.73	.72	.70	.69	.67	.65
	.938	.949	.959	.968	.976	.984	.992	.998	*002	*006	*008	*010	*009	*008	*005	*000	.993	.983						
15	.66	.67	.68	.69	.70	.70	.71	.72	.72	.73	.73	.73	.73	.73	.72	.72	.71	.71	.69	.68	.67	.65	.63	.61
	.889	.900	.910	.920	.929	.937	.945	.951	.956	.960	.963	.964	.964	.963	.959	.954	.947	.937						
30	.62	.63	.64	.65	.66	.67	.67	.68	.68	.69	.69	.69	.69	.69	.69	.68	.68	.67	.66	.64	.63	.61	.60	.58
	.836	.848	.859	.869	.879	.887	.896	.902	.908	.912	.915	.917	.917	.915	.911	.906	.898	.888						
45	.58	.59	.60	.61	.62	.63	.64	.64	.65	.65	.65	.65	.65	.65	.65	.65	.64	.63	.62	.60	.59	.57	.55	.53
	.782	.794	.805	.816	.826	.835	.844	.851	.857	.861	.864	.866	.866	.864	.861	.855	.847	.837						

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

TABLE B-1 SOLAR PARAMETERS COS Z
XO (W/M*2.)

MAY-AUG 38 N

MST	MAY					JUN					JUL					AUG									
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30							
600	.54	.55	.56	.57	.58	.59	.59	.60	.61	.61	.61	.61	.61	.61	.61	.61	.60	.59	.58	.56	.55	.53	.51	.49	
	724	737	749	760	771	780	790	797	803	808	812	813	813	811	808	802	793	783	767	753	731	710	686	660	
15	.49	.51	.52	.53	.54	.54	.55	.56	.56	.57	.57	.57	.57	.57	.57	.56	.56	.55	.53	.52	.50	.49	.47	.45	
	665	678	691	703	713	723	734	742	748	753	757	758	758	755	752	746	737	726	710	693	673	651	627	600	
30	.45	.46	.47	.48	.49	.50	.51	.52	.52	.53	.53	.53	.53	.53	.53	.52	.51	.50	.49	.43	.43	.44	.42	.40	
	604	618	631	643	654	665	676	684	691	696	700	702	702	700	695	689	680	668	651	633	613	590	565	537	
45	.40	.41	.43	.44	.45	.45	.46	.47	.48	.48	.48	.49	.49	.49	.48	.48	.47	.46	.44	.43	.41	.39	.37	.35	
	541	556	569	582	594	605	617	625	632	638	641	643	643	641	636	629	620	608	590	572	551	528	502	473	
1700	.35	.37	.38	.39	.40	.41	.42	.43	.43	.44	.44	.44	.44	.44	.44	.43	.42	.41	.40	.33	.37	.35	.33	.30	
	477	492	506	520	532	544	556	565	572	578	581	583	583	581	576	569	559	546	528	503	489	464	437	408	
15	.31	.32	.33	.34	.35	.36	.37	.38	.39	.39	.39	.40	.40	.39	.39	.38	.37	.36	.35	.33	.32	.30	.28	.25	
	412	427	442	456	469	481	494	503	511	517	521	523	523	520	515	507	497	484	464	445	423	398	371	341	
30	.26	.27	.28	.29	.30	.31	.33	.33	.34	.34	.35	.35	.35	.35	.35	.34	.33	.32	.30	.29	.27	.25	.23	.20	
	346	362	377	392	406	418	431	441	449	455	459	461	461	460	458	452	444	434	400	380	357	332	304	274	
45	.21	.22	.23	.25	.26	.27	.28	.29	.29	.30	.30	.30	.30	.30	.30	.29	.28	.27	.25	.21	.22	.20	.18	.15	
	279	296	312	327	342	355	368	378	386	392	397	398	398	393	395	389	381	370	335	314	291	265	237	206	
1800	.16	.17	.18	.20	.21	.22	.23	.24	.24	.25	.25	.25	.25	.25	.25	.24	.23	.22	.20	.19	.17	.15	.13	.10	
	213	230	247	263	277	291	305	315	323	330	334	336	336	335	332	325	317	305	269	248	225	198	169	138	
15	.11	.12	.14	.15	.16	.17	.18	.19	.20	.20	.21	.21	.21	.21	.20	.19	.18	.17	.15	.14	.12	.10	.08	.05	
	146	164	181	198	213	227	242	252	261	267	271	273	273	272	269	262	253	241	204	182	153	131	101	069	
30	.06	.07	.09	.10	.11	.12	.13	.14	.15	.15	.16	.16	.16	.16	.16	.15	.14	.13	.12	.10	.09	.07	.05	.03	.00
	080	098	116	133	149	163	179	189	198	205	209	210	210	210	206	199	190	177	161	138	113	091	063	033	001
45	.01	.03	.04	.05	.06	.08	.09	.10	.10	.11	.11	.11	.11	.11	.11	.10	.09	.07	.06	.04	.02	.00	.00	.00	
	014	033	052	069	086	101	116	127	136	143	147	148	148	147	143	136	126	113	074	051	035	000	000	000	

... SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

TABLE B-1 SOLAR PARAMETERS
X0 (W/H**2.)

COS Z

MAY-AUG 38 N

MST	DATE											
	MAY				JUN				JUL			
	5	10	15	20	25	30	5	10	15	20	25	30
1900	.00	.00	.00	.01	.02	.03	.04	.05	.06	.07	.07	.07
	000	000	000	000	007	023	039	055	066	075	082	086
15	.00	.00	.00	.00	.00	.00	.00	.00	.01	.02	.02	.02
	000	000	000	000	000	000	000	000	006	015	021	025
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000

TABLE B-1 SOLAR PARAMETERS COS 2
X0 (W/M**2.)

*** SIGNIFIES COS 2 = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	DATE												NOV												DEC											
	SEP						OCT						NOV						DEC																	
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30												
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00												
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000												
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00												
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000												
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00												
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000												
45	.03	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00												
	041	022	003	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000												
0600	.08	.07	.05	.04	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00												
	110	091	073	053	034	013	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000												
15	.13	.12	.11	.09	.08	.06	.05	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00												
	179	161	142	123	104	083	062	040	018	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000												
30	.18	.17	.16	.14	.13	.11	.10	.08	.06	.05	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00												
	247	230	212	193	173	153	132	110	087	064	039	015	000	000	000	000	000	000	000	000	000	000	000	000												
45	.23	.22	.21	.19	.18	.16	.15	.13	.11	.10	.08	.06	.05	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00												
	315	298	280	262	242	222	201	179	156	132	107	082	052	026	001	000	000	000	000	000	000	000	000	000												
0700	.28	.27	.26	.24	.23	.21	.20	.18	.16	.14	.13	.11	.10	.08	.06	.05	.03	.01	.00	.00	.00	.00	.00	.00												
	382	365	348	329	310	290	269	246	223	199	174	149	118	092	067	042	018	000	000	000	000	000	000	000												
15	.33	.32	.31	.29	.28	.26	.24	.23	.21	.19	.17	.15	.13	.11	.09	.08	.06	.04	.03	.02	.00	.00	.00	.00												
	448	432	414	396	377	356	335	313	289	265	240	214	183	157	131	106	082	060	039	021	003	000	000	000												
30	.38	.37	.35	.34	.32	.31	.29	.27	.26	.24	.22	.20	.18	.16	.14	.12	.10	.09	.07	.05	.04	.03	.03	.03												
	513	496	479	461	441	421	400	377	353	329	303	277	246	219	194	168	144	122	101	083	067	055	045	039												
45	.43	.41	.40	.39	.37	.35	.34	.32	.30	.28	.26	.24	.22	.20	.18	.16	.15	.13	.11	.10	.09	.08	.08	.07												
	575	559	542	524	504	484	462	439	415	391	365	339	307	280	254	229	205	182	161	143	128	115	106	100												

... SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY

TABLE E-1 SOLAR PARAMETERS
XO (W/M**2.)

SEP-DEC 38 N

MST	SEP					OCT					NOV					DEC								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
0800	.47	.46	.44	.43	.41	.40	.38	.36	.35	.33	.31	.29	.26	.24	.22	.20	.19	.17	.16	.14	.13	.12	.12	.11
	636	620	603	584	565	544	523	499	475	450	424	398	365	339	312	287	263	240	220	202	185	174	165	160
15	.52	.50	.49	.47	.46	.44	.42	.41	.39	.37	.35	.33	.30	.28	.26	.24	.23	.21	.20	.19	.17	.16	.16	.15
	694	678	661	643	623	602	580	557	533	507	481	454	422	395	368	342	318	296	275	257	232	230	222	217
30	.56	.54	.53	.51	.50	.48	.46	.45	.43	.41	.39	.37	.33	.32	.30	.28	.26	.25	.23	.22	.21	.20	.20	.19
	750	734	717	698	679	658	635	612	587	561	535	508	475	448	421	395	371	349	328	311	291	284	276	272
45	.60	.58	.57	.55	.54	.52	.50	.48	.46	.44	.42	.40	.38	.36	.34	.32	.30	.28	.27	.25	.25	.24	.23	.23
	803	787	770	751	731	710	688	664	639	613	586	558	525	498	471	445	421	399	379	361	347	336	328	324
0900	.63	.62	.61	.59	.57	.56	.54	.52	.50	.48	.46	.44	.41	.39	.37	.35	.33	.32	.30	.29	.28	.27	.27	.26
	853	837	820	801	781	759	736	712	687	660	633	606	572	545	518	492	468	446	426	409	395	384	377	374
15	.67	.65	.64	.62	.61	.59	.57	.55	.53	.51	.49	.47	.44	.42	.40	.38	.36	.35	.33	.32	.31	.30	.30	.30
	900	884	866	847	827	805	782	757	732	705	677	650	616	586	562	536	512	490	470	453	440	429	423	420
30	.70	.69	.67	.66	.64	.62	.60	.58	.56	.54	.52	.50	.47	.45	.43	.41	.39	.38	.36	.35	.34	.33	.33	.33
	944	927	909	890	869	847	824	799	773	746	718	690	656	628	602	576	552	530	511	494	481	471	465	463
45	.73	.72	.70	.68	.67	.65	.63	.61	.59	.57	.54	.52	.50	.48	.46	.44	.42	.40	.39	.39	.37	.36	.36	.36
	984	967	949	929	908	886	862	836	810	783	755	726	692	665	638	612	588	567	548	532	519	510	504	503
1000	.76	.74	.73	.71	.69	.67	.65	.63	.61	.59	.57	.55	.52	.50	.48	.46	.44	.43	.41	.40	.39	.39	.38	.38
	1020	1003	984	964	943	920	896	870	843	816	787	759	725	697	670	645	621	600	581	565	553	545	540	539
15	.78	.77	.75	.73	.71	.70	.68	.65	.63	.61	.59	.57	.54	.52	.50	.48	.46	.45	.43	.42	.41	.41	.40	.40
	1052	1035	1016	996	974	950	926	900	872	844	816	787	753	725	698	673	650	629	611	595	584	576	571	571
30	.80	.79	.77	.75	.73	.71	.69	.67	.65	.63	.61	.58	.56	.54	.52	.50	.48	.46	.45	.44	.43	.43	.42	.42
	1080	1062	1043	1023	1000	977	951	925	897	869	840	811	777	749	723	698	674	654	636	621	610	603	599	599
45	.82	.80	.79	.77	.75	.73	.71	.69	.67	.64	.62	.60	.57	.55	.53	.51	.49	.48	.47	.46	.45	.44	.44	.44
	1104	1086	1066	1045	1023	998	973	946	918	889	860	831	797	769	742	718	695	675	657	643	633	626	623	624

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

TABLE B-1 SOLAR PARAMETERS COS Z
XO (W/M**2.)

SEP-DEC 38 N

MST	SEP					OCT					NOV					DEC								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30						
1100	.83	.82	.80	.78	.76	.74	.72	.70	.68	.65	.63	.61	.58	.56	.54	.52	.51	.49	.48	.47	.45	.46	.45	.46
	.124	.105	.085	.064	.040	.016	.990	.962	.934	.905	.876	.847	.812	.784	.758	.733	.711	.691	.674	.661	.651	.644	.642	.644
15	.84	.83	.81	.79	.77	.75	.73	.71	.69	.66	.64	.62	.59	.57	.55	.53	.51	.50	.49	.48	.47	.47	.46	.47
	.139	.120	.100	.077	.054	.029	.002	.974	.946	.916	.887	.858	.823	.795	.769	.745	.723	.703	.687	.674	.665	.659	.657	.660
30	.85	.84	.82	.80	.78	.76	.74	.71	.69	.67	.64	.62	.60	.57	.55	.54	.52	.51	.49	.48	.48	.47	.47	.47
	.150	.130	.109	.087	.063	.037	.010	.982	.953	.923	.893	.864	.830	.802	.776	.752	.730	.711	.695	.683	.674	.669	.668	.671
45	.86	.84	.82	.80	.78	.76	.74	.72	.69	.67	.65	.62	.60	.58	.56	.54	.52	.51	.50	.49	.48	.48	.48	.48
	.156	.136	.115	.092	.067	.041	.013	.984	.955	.925	.895	.866	.831	.804	.778	.755	.733	.715	.699	.683	.679	.675	.675	.678
1200	.86	.84	.82	.80	.78	.76	.74	.72	.69	.67	.64	.62	.60	.57	.55	.54	.52	.51	.50	.49	.48	.48	.48	.48
	.158	.138	.116	.092	.066	.040	.012	.983	.953	.923	.893	.863	.829	.802	.776	.753	.732	.714	.699	.683	.680	.677	.677	.681
15	.86	.84	.82	.80	.78	.76	.73	.71	.69	.66	.64	.62	.60	.57	.55	.53	.52	.50	.49	.49	.48	.48	.48	.48
	.155	.134	.112	.087	.061	.034	.006	.976	.946	.916	.886	.856	.822	.795	.769	.746	.726	.708	.694	.684	.677	.674	.675	.680
30	.85	.83	.81	.79	.77	.75	.73	.70	.68	.65	.63	.61	.58	.56	.54	.52	.51	.50	.49	.48	.47	.47	.47	.48
	.148	.127	.103	.078	.052	.024	.995	.965	.935	.904	.874	.844	.810	.783	.758	.735	.716	.699	.685	.675	.669	.667	.668	.674
45	.84	.82	.80	.78	.76	.74	.72	.69	.67	.64	.62	.60	.57	.55	.53	.51	.50	.49	.48	.47	.47	.46	.47	.47
	.136	.114	.091	.065	.038	.009	.980	.950	.919	.888	.858	.828	.794	.767	.743	.720	.701	.685	.672	.662	.657	.655	.657	.664
1300	.83	.81	.79	.77	.75	.72	.70	.68	.65	.63	.60	.58	.55	.53	.52	.50	.49	.47	.46	.45	.45	.45	.45	.46
	.120	.098	.073	.047	.019	.990	.960	.930	.899	.868	.837	.807	.773	.747	.723	.701	.682	.666	.654	.645	.640	.639	.642	.649
15	.82	.80	.78	.75	.73	.71	.68	.66	.63	.61	.59	.56	.54	.52	.50	.48	.47	.46	.45	.44	.44	.44	.44	.45
	.100	.077	.052	.025	.996	.967	.935	.905	.874	.843	.812	.782	.749	.722	.692	.677	.659	.643	.632	.624	.619	.619	.623	.630
30	.80	.78	.76	.73	.71	.69	.66	.64	.61	.59	.57	.54	.52	.50	.48	.46	.45	.44	.43	.42	.42	.42	.42	.43
	.075	.051	.026	.998	.969	.939	.908	.877	.845	.814	.783	.753	.720	.694	.670	.649	.631	.617	.606	.593	.585	.595	.599	.607
45	.78	.76	.73	.71	.69	.66	.64	.61	.59	.56	.54	.52	.49	.47	.46	.44	.43	.42	.41	.40	.40	.40	.40	.41
	.046	.022	.995	.967	.938	.907	.876	.844	.812	.780	.750	.720	.687	.661	.633	.617	.600	.586	.575	.563	.565	.567	.572	.580

TABLE B-1 SOLAR PARAMETERS COS Z
 X0 (W/M**2.)
 ... SIGNIFIES COS Z = 1.
 ADD 1000 TO VALUES PRECEDED BY .

MST	SEP					OCT					DATE					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1400	.75	.73	.71	.69	.66	.64	.61	.59	.56	.54	.51	.49	.47	.45	.43	.41	.40	.39	.38	.37	.38	.38	.38	.39	
	014	988	961	932	902	871	839	807	775	743	712	683	650	621	602	582	565	551	541	535	533	535	540	549	
15	.72	.70	.68	.66	.63	.61	.58	.56	.53	.51	.49	.46	.44	.42	.40	.39	.37	.36	.36	.35	.35	.35	.36	.36	
	977	951	923	894	863	831	799	766	734	702	671	642	609	584	562	542	526	513	504	498	497	499	505	515	
30	.69	.67	.65	.63	.60	.58	.55	.53	.50	.48	.45	.43	.41	.39	.37	.36	.34	.34	.33	.32	.32	.33	.33	.34	
	936	910	881	851	820	788	755	722	689	657	627	597	565	540	518	499	483	471	462	453	455	459	466	476	
45	.66	.64	.62	.59	.57	.54	.52	.49	.47	.44	.42	.40	.37	.35	.34	.32	.31	.30	.30	.29	.29	.29	.30	.31	
	892	865	836	805	773	740	707	674	641	609	579	549	517	493	471	453	438	426	418	413	413	416	423	434	
1500	.63	.60	.58	.56	.53	.51	.48	.45	.43	.40	.38	.36	.35	.32	.30	.29	.28	.27	.26	.26	.25	.26	.27	.28	
	845	817	787	756	723	690	657	623	590	558	527	498	466	442	421	403	389	377	370	366	366	370	378	389	
15	.59	.57	.54	.52	.49	.47	.44	.41	.39	.36	.34	.32	.30	.28	.26	.25	.24	.23	.23	.22	.22	.23	.23	.24	
	794	765	735	703	670	636	603	569	536	504	473	444	412	389	368	351	337	326	319	316	316	321	329	340	
30	.55	.53	.50	.48	.45	.42	.40	.37	.35	.32	.30	.28	.26	.24	.22	.21	.20	.19	.19	.19	.19	.19	.20	.20	
	741	711	680	648	614	580	546	512	479	446	416	387	356	333	312	295	282	272	265	263	264	269	277	289	
45	.51	.48	.46	.43	.41	.38	.36	.33	.30	.28	.26	.24	.21	.20	.18	.17	.16	.15	.15	.15	.15	.15	.16	.17	
	684	654	622	589	555	521	486	452	419	387	356	328	297	274	254	238	225	215	209	207	209	214	223	235	
1600	.46	.44	.42	.39	.36	.34	.31	.28	.26	.24	.21	.19	.17	.15	.14	.13	.12	.11	.11	.11	.11	.12	.12	.13	
	625	595	562	529	494	460	425	390	357	325	294	266	235	213	194	178	165	156	151	149	151	157	166	178	
15	.42	.39	.37	.34	.32	.29	.26	.24	.21	.19	.17	.15	.12	.11	.09	.08	.07	.07	.06	.06	.07	.07	.08	.08	
	564	533	500	466	431	396	361	326	293	261	230	202	172	150	131	116	104	095	090	089	091	097	107	119	
30	.37	.35	.32	.30	.27	.24	.22	.19	.17	.14	.12	.10	.08	.06	.05	.04	.03	.02	.02	.02	.02	.03	.03	.04	
	501	469	436	401	366	331	295	261	227	195	165	137	107	086	067	052	040	032	028	027	030	036	046	058	
45	.32	.30	.27	.25	.22	.19	.17	.14	.12	.09	.07	.05	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	437	404	370	335	299	264	228	193	160	128	098	070	041	019	001	000	000	000	000	000	000	000	000	000	

SEP-DEC 38 N TABLE B-1 SOLAR PARAMETERS COS Z *** SIGNIFIES COS Z =1.
 ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30		
1700	.28	.25	.22	.20	.17	.14	.12	.09	.07	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	
	371	337	303	267	231	195	160	125	091	059	030	002	000	000	000	000	000	000	000	
15	.23	.20	.17	.15	.12	.09	.07	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	303	270	235	199	162	126	090	055	022	000	000	000	000	000	000	000	000	000	000	
30	.17	.15	.12	.10	.07	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	235	201	166	129	093	056	020	000	000	000	000	000	000	000	000	000	000	000	000	
45	.12	.10	.07	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	166	132	096	059	022	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
1800	.07	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	097	062	026	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
15	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	028	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

SOLAR PARAMETERS
X0 (W/*2.)

TABLE B-1

38 N

SEP-DEC

MST	JAN							FEB							MAR							APR						
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30			
0800	.13 .13 .13 .14 .14 .15 .17	.18 .20 .22 .24 .26	.30 .32 .35 .37 .40 .42	.45 .47 .50 .51 .53 .55	.619 .647 .673 .698 .719 .738	.50 .52 .54 .56 .58 .59	.680 .703 .734 .757 .778 .797	.54 .55 .58 .60 .62 .63	.739 .767 .792 .814 .835 .852	.58 .60 .62 .64 .66 .67	.796 .822 .847 .869 .888 .905	.62 .64 .66 .68 .69 .71	.849 .875 .898 .920 .939 .955	.66 .68 .70 .71 .73 .74	.899 .924 .947 .968 .986 .002	.69 .71 .73 .75 .76 .77	.945 .970 .992 .012 .030 .045	.72 .74 .76 .78 .79 .80	.988 .012 .034 .053 .070 .085	.75 .77 .79 .80 .82 .83	.027 .050 .071 .090 .106 .120	.78 .80 .81 .83 .84 .85	.062 .084 .105 .123 .139 .152	.80 .82 .83 .85 .86 .87	.092 .114 .134 .152 .167 .180	.82 .84 .85 .87 .88 .89	.118 .140 .159 .176 .191 .203	
15	.17 .17 .18 .18 .19 .20 .21	.23 .25 .26 .29 .31	.35 .37 .40 .42 .45 .47	.50 .52 .54 .56 .58 .59	.680 .703 .734 .757 .778 .797	.54 .55 .58 .60 .62 .63	.739 .767 .792 .814 .835 .852	.58 .60 .62 .64 .66 .67	.796 .822 .847 .869 .888 .905	.62 .64 .66 .68 .69 .71	.849 .875 .898 .920 .939 .955	.66 .68 .70 .71 .73 .74	.899 .924 .947 .968 .986 .002	.69 .71 .73 .75 .76 .77	.945 .970 .992 .012 .030 .045	.72 .74 .76 .78 .79 .80	.988 .012 .034 .053 .070 .085	.75 .77 .79 .80 .82 .83	.027 .050 .071 .090 .106 .120	.78 .80 .81 .83 .84 .85	.062 .084 .105 .123 .139 .152	.80 .82 .83 .85 .86 .87	.092 .114 .134 .152 .167 .180	.82 .84 .85 .87 .88 .89	.118 .140 .159 .176 .191 .203			
30	.21 .21 .22 .22 .23 .24 .25	.27 .29 .31 .33 .35	.39 .41 .43 .45 .47	.50 .52 .54 .56 .58 .59	.680 .703 .734 .757 .778 .797	.54 .55 .58 .60 .62 .63	.739 .767 .792 .814 .835 .852	.58 .60 .62 .64 .66 .67	.796 .822 .847 .869 .888 .905	.62 .64 .66 .68 .69 .71	.849 .875 .898 .920 .939 .955	.66 .68 .70 .71 .73 .74	.899 .924 .947 .968 .986 .002	.69 .71 .73 .75 .76 .77	.945 .970 .992 .012 .030 .045	.72 .74 .76 .78 .79 .80	.988 .012 .034 .053 .070 .085	.75 .77 .79 .80 .82 .83	.027 .050 .071 .090 .106 .120	.78 .80 .81 .83 .84 .85	.062 .084 .105 .123 .139 .152	.80 .82 .83 .85 .86 .87	.092 .114 .134 .152 .167 .180	.82 .84 .85 .87 .88 .89	.118 .140 .159 .176 .191 .203			
45	.25 .25 .26 .26 .27 .28 .29	.31 .33 .35 .37 .39	.43 .45 .47 .49 .51	.54 .56 .58 .60 .62 .63	.739 .767 .792 .814 .835 .852	.58 .60 .62 .64 .66 .67	.796 .822 .847 .869 .888 .905	.62 .64 .66 .68 .69 .71	.849 .875 .898 .920 .939 .955	.66 .68 .70 .71 .73 .74	.899 .924 .947 .968 .986 .002	.69 .71 .73 .75 .76 .77	.945 .970 .992 .012 .030 .045	.72 .74 .76 .78 .79 .80	.988 .012 .034 .053 .070 .085	.75 .77 .79 .80 .82 .83	.027 .050 .071 .090 .106 .120	.78 .80 .81 .83 .84 .85	.062 .084 .105 .123 .139 .152	.80 .82 .83 .85 .86 .87	.092 .114 .134 .152 .167 .180	.82 .84 .85 .87 .88 .89	.118 .140 .159 .176 .191 .203					
0900	.29 .29 .29 .30 .31 .32 .33	.35 .37 .39 .41 .43	.47 .50 .52 .55 .57 .59	.657 .690 .722 .754 .786 .815	.51 .54 .56 .58 .61 .63	.710 .742 .775 .806 .837 .866	.55 .57 .60 .62 .64 .67	.759 .792 .823 .855 .885 .913	.58 .60 .63 .65 .67 .70	.805 .837 .868 .899 .929 .957	.61 .63 .66 .68 .70 .73	.847 .879 .910 .940 .969 .996	.64 .66 .68 .71 .73 .75	.885 .916 .947 .977 .005 .032	.66 .68 .71 .73 .75 .77	.919 .950 .980 .009 .037 .063	.68 .71 .73 .75 .77 .79	.948 .979 .008 .037 .064 .090	.75 .77 .79 .80 .82 .83	.027 .050 .071 .090 .106 .120	.78 .80 .81 .83 .84 .85	.062 .084 .105 .123 .139 .152	.80 .82 .83 .85 .86 .87	.092 .114 .134 .152 .167 .180	.82 .84 .85 .87 .88 .89	.118 .140 .159 .176 .191 .203		
15	.32 .32 .33 .33 .34 .35 .37	.39 .41 .43 .45 .47	.50 .52 .54 .56 .58 .59	.680 .703 .734 .757 .778 .797	.54 .55 .58 .60 .62 .63	.739 .767 .792 .814 .835 .852	.58 .60 .62 .64 .66 .67	.796 .822 .847 .869 .888 .905	.62 .64 .66 .68 .69 .71	.849 .875 .898 .920 .939 .955	.66 .68 .70 .71 .73 .74	.899 .924 .947 .968 .986 .002	.69 .71 .73 .75 .76 .77	.945 .970 .992 .012 .030 .045	.72 .74 .76 .78 .79 .80	.988 .012 .034 .053 .070 .085	.75 .77 .79 .80 .82 .83	.027 .050 .071 .090 .106 .120	.78 .80 .81 .83 .84 .85	.062 .084 .105 .123 .139 .152	.80 .82 .83 .85 .86 .87	.092 .114 .134 .152 .167 .180	.82 .84 .85 .87 .88 .89	.118 .140 .159 .176 .191 .203				
30	.35 .36 .36 .37 .38 .39 .40	.42 .44 .46 .48 .51	.55 .57 .60 .62 .64 .67	.759 .792 .823 .855 .885 .913	.58 .60 .63 .65 .67 .70	.805 .837 .868 .899 .929 .957	.61 .63 .66 .68 .70 .73	.847 .879 .910 .940 .969 .996	.64 .66 .68 .71 .73 .75	.885 .916 .947 .977 .005 .032	.66 .68 .71 .73 .75 .77	.919 .950 .980 .009 .037 .063	.68 .71 .73 .75 .77 .79	.948 .979 .008 .037 .064 .090	.75 .77 .79 .80 .82 .83	.027 .050 .071 .090 .106 .120	.78 .80 .81 .83 .84 .85	.062 .084 .105 .123 .139 .152	.80 .82 .83 .85 .86 .87	.092 .114 .134 .152 .167 .180	.82 .84 .85 .87 .88 .89	.118 .140 .159 .176 .191 .203						
45	.38 .38 .39 .40 .41 .42 .43	.46 .47 .50 .52 .54	.58 .60 .63 .65 .67 .70	.805 .837 .868 .899 .929 .957	.61 .63 .66 .68 .70 .73	.847 .879 .910 .940 .969 .996	.64 .66 .68 .71 .73 .75	.885 .916 .947 .977 .005 .032	.66 .68 .71 .73 .75 .77	.919 .950 .980 .009 .037 .063	.68 .71 .73 .75 .77 .79	.948 .979 .008 .037 .064 .090	.75 .77 .79 .80 .82 .83	.027 .050 .071 .090 .106 .120	.78 .80 .81 .83 .84 .85	.062 .084 .105 .123 .139 .152	.80 .82 .83 .85 .86 .87	.092 .114 .134 .152 .167 .180	.82 .84 .85 .87 .88 .89	.118 .140 .159 .176 .191 .203								
1000	.41 .41 .42 .42 .44 .45 .46	.48 .50 .53 .55 .57	.61 .63 .66 .68 .70 .73	.847 .879 .910 .940 .969 .996	.64 .66 .68 .71 .73 .75	.885 .916 .947 .977 .005 .032	.66 .68 .71 .73 .75 .77	.919 .950 .980 .009 .037 .063	.68 .71 .73 .75 .77 .79	.948 .979 .008 .037 .064 .090	.75 .77 .79 .80 .82 .83	.027 .050 .071 .090 .106 .120	.78 .80 .81 .83 .84 .85	.062 .084 .105 .123 .139 .152	.80 .82 .83 .85 .86 .87	.092 .114 .134 .152 .167 .180	.82 .84 .85 .87 .88 .89	.118 .140 .159 .176 .191 .203										
15	.43 .44 .44 .45 .46 .47 .49	.51 .53 .55 .57 .60	.64 .66 .68 .71 .73 .75	.885 .916 .947 .977 .005 .032	.66 .68 .71 .73 .75 .77	.919 .950 .980 .009 .037 .063	.68 .71 .73 .75 .77 .79	.948 .979 .008 .037 .064 .090	.75 .77 .79 .80 .82 .83	.027 .050 .071 .090 .106 .120	.78 .80 .81 .83 .84 .85	.062 .084 .105 .123 .139 .152	.80 .82 .83 .85 .86 .87	.092 .114 .134 .152 .167 .180	.82 .84 .85 .87 .88 .89	.118 .140 .159 .176 .191 .203												
30	.45 .46 .46 .47 .48 .50 .51	.53 .55 .58 .60 .62	.66 .68 .71 .73 .75 .77	.919 .950 .980 .009 .037 .063	.68 .71 .73 .75 .77 .79	.948 .979 .008 .037 .064 .090	.75 .77 .79 .80 .82 .83	.027 .050 .071 .090 .106 .120	.78 .80 .81 .83 .84 .85	.062 .084 .105 .123 .139 .152	.80 .82 .83 .85 .86 .87	.092 .114 .134 .152 .167 .180	.82 .84 .85 .87 .88 .89	.118 .140 .159 .176 .191 .203														
45	.47 .47 .48 .49 .50 .52 .53	.56 .58 .60 .62 .64	.68 .70 .72 .74 .76 .78	.920 .940 .960 .980 .000 .020	.70 .72 .74 .76 .78 .80	.980 .000 .020 .040 .060 .080	.80 .82 .84 .86 .88 .90	.000 .020 .040 .060 .080 .100	.82 .84 .86 .88 .90 .92	.000 .020 .040 .060 .080 .100	.84 .86 .88 .90 .92 .94	.000 .020 .040 .060 .080 .100	.86 .88 .90 .92 .94 .96	.000 .020 .040 .060 .080 .100	.88 .90 .92 .94 .96 .98	.000 .020 .040 .060 .080 .100	.90 .92 .94 .96 .98 .100	.000 .020 .040 .060 .080 .100	.92 .94 .96 .98 .100 .020	.000 .020 .040 .060 .080 .100	.94 .96 .98 .100 .020 .040	.000 .020 .040 .060 .080 .100	.96 .98 .100 .020 .040 .060	.000 .020 .040 .060 .080 .100	.98 .100 .020 .040 .060 .080	.000 .020 .040 .060 .080 .100	.100 .020 .040 .060 .080 .100	

*** SIGNIFIES COS 2 = 1.
ADD 1000 TO VALUES PRECEDED BY *

SOLAR PARAMETERS
XO (W/M*2.)

TABLE B-1

JAN-APR 36 N

MST	JAN					FEB					DATE					MAR					APR				
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1100	.49	.49	.50	.51	.52	.53	.55	.57	.59	.62	.64	.66	.70	.72	.75	.77	.79	.81	.83	.85	.87	.88	.90	.91	.91
	687	693	703	716	733	753	776	807	834	863	893	924	973	003	032	061	088	113	140	161	180	196	210	223	223
15	.50	.50	.51	.52	.53	.55	.56	.59	.61	.63	.65	.68	.71	.74	.76	.78	.80	.82	.85	.85	.88	.89	.91	.92	.92
	704	710	721	735	752	773	796	827	855	884	914	944	993	023	052	080	106	131	158	173	189	212	226	238	238
30	.51	.51	.52	.53	.54	.56	.58	.60	.62	.64	.66	.69	.73	.75	.77	.79	.81	.83	.86	.87	.89	.90	.91	.93	.93
	716	723	734	749	767	788	812	843	871	900	930	960	000	038	067	094	120	144	170	190	207	223	236	248	248
45	.51	.52	.53	.54	.55	.57	.58	.61	.63	.65	.67	.70	.73	.76	.78	.80	.82	.84	.86	.88	.89	.91	.92	.93	.93
	724	731	743	759	777	799	823	854	882	912	942	972	020	049	077	104	129	153	178	197	214	230	243	254	254
1200	.51	.52	.53	.54	.55	.57	.59	.61	.63	.66	.68	.70	.74	.76	.78	.80	.82	.84	.86	.88	.89	.91	.92	.93	.93
	727	735	748	764	783	805	829	861	889	918	948	979	026	055	083	109	134	156	181	200	217	231	244	255	255
15	.51	.52	.53	.54	.55	.57	.59	.61	.63	.66	.68	.70	.74	.76	.78	.80	.82	.84	.86	.88	.89	.91	.92	.93	.93
	726	734	747	764	784	806	831	863	891	921	950	980	028	056	083	109	133	156	180	199	214	229	241	252	252
30	.51	.52	.53	.54	.55	.57	.59	.61	.63	.65	.68	.70	.74	.76	.78	.80	.82	.84	.86	.87	.89	.90	.91	.92	.92
	720	729	743	760	780	803	828	860	889	918	948	978	024	052	079	104	128	150	174	192	208	222	234	244	244
45	.50	.51	.52	.53	.55	.56	.58	.61	.63	.65	.67	.69	.73	.75	.77	.79	.81	.83	.85	.87	.88	.89	.90	.91	.91
	710	719	734	751	772	795	820	853	881	911	940	970	016	044	070	095	118	140	163	180	196	210	222	232	232
1300	.49	.50	.51	.52	.54	.55	.57	.60	.62	.64	.66	.69	.72	.74	.76	.78	.80	.82	.84	.85	.87	.88	.89	.90	.90
	696	705	720	738	759	783	808	841	870	899	928	958	003	030	056	081	104	125	148	165	180	193	205	216	216
15	.48	.49	.50	.51	.53	.54	.56	.59	.61	.63	.65	.67	.71	.73	.75	.77	.79	.81	.82	.84	.85	.86	.88	.89	.89
	677	686	702	721	742	766	791	824	853	882	911	940	986	013	038	062	084	105	128	144	159	173	184	195	195
30	.46	.47	.48	.49	.51	.53	.55	.57	.59	.61	.64	.66	.69	.71	.73	.75	.77	.79	.81	.82	.83	.85	.86	.87	.87
	653	664	680	699	720	744	770	803	832	861	890	919	963	990	015	039	061	081	103	119	134	148	159	170	170
45	.44	.45	.46	.48	.49	.51	.53	.55	.57	.60	.62	.64	.67	.69	.71	.73	.75	.77	.79	.80	.81	.82	.84	.85	.85
	626	636	653	672	694	719	745	778	806	835	864	893	937	963	988	011	033	052	074	090	105	118	130	140	140

... SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

SOLAR PARAMETERS
COS Z
XO (W/M)*2.)

TABLE B-1

JAN-APR 36 N

MST	JAN					FEB					DATE					MAR					APR				
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
400	.42	.43	.44	.45	.47	.49	.51	.53	.55	.57	.60	.62	.65	.67	.69	.71	.73	.74	.76	.77	.79	.80	.81	.82	.82
	594	605	622	642	664	689	715	748	776	805	834	862	905	931	956	979	1000	1020	1041	1057	1072	1085	1098	1107	1107
15	.39	.40	.42	.43	.45	.46	.48	.51	.53	.55	.57	.59	.63	.65	.66	.68	.70	.72	.73	.75	.76	.77	.78	.79	.79
	559	570	587	607	630	654	681	714	742	771	799	827	870	896	920	942	963	983	1004	1023	1034	1047	1059	1070	1070
30	.37	.38	.39	.40	.42	.44	.46	.48	.50	.52	.54	.56	.60	.62	.64	.65	.67	.69	.70	.72	.73	.74	.75	.76	.76
	519	531	549	569	592	616	643	676	704	732	761	788	831	856	880	902	922	942	962	973	983	1006	1018	1029	1029
45	.34	.35	.36	.37	.39	.41	.43	.45	.47	.49	.51	.53	.57	.59	.60	.62	.64	.65	.67	.69	.70	.71	.72	.73	.73
	476	488	506	527	550	575	601	634	662	690	719	745	787	812	836	857	878	897	917	933	948	961	973	984	984
1500	.30	.31	.33	.34	.36	.38	.39	.42	.44	.46	.48	.50	.53	.55	.57	.59	.60	.62	.64	.65	.66	.67	.68	.69	.69
	430	442	460	481	504	529	555	588	616	644	672	699	740	765	788	809	830	848	869	885	899	912	925	936	936
15	.27	.28	.29	.31	.32	.34	.36	.38	.40	.42	.44	.46	.50	.51	.53	.55	.57	.58	.60	.61	.62	.63	.65	.66	.66
	380	393	411	432	455	480	506	539	567	594	622	649	690	714	736	758	778	796	817	833	847	861	873	885	885
30	.23	.24	.25	.27	.29	.30	.32	.35	.37	.39	.41	.43	.46	.48	.49	.51	.53	.54	.56	.57	.58	.59	.61	.62	.62
	328	340	359	380	403	428	454	486	514	541	568	595	635	659	682	703	723	741	762	773	792	806	819	831	831
45	.19	.20	.22	.23	.25	.26	.28	.31	.33	.35	.37	.39	.42	.43	.45	.47	.48	.50	.51	.53	.54	.55	.56	.57	.57
	272	285	304	325	348	373	399	431	458	485	512	538	578	602	624	645	665	683	704	720	735	749	762	774	774
1600	.15	.16	.17	.19	.21	.22	.24	.27	.28	.30	.32	.34	.37	.39	.41	.42	.44	.45	.47	.48	.50	.51	.52	.53	.53
	214	227	246	267	290	315	341	372	399	426	453	479	518	541	563	584	604	622	643	659	674	689	702	715	715
15	.11	.12	.13	.15	.16	.18	.20	.22	.24	.26	.28	.30	.33	.35	.36	.38	.39	.41	.42	.44	.45	.46	.47	.48	.48
	154	167	186	207	230	254	280	312	338	365	391	416	455	479	500	521	541	559	580	595	612	626	640	654	654
30	.07	.07	.09	.10	.12	.14	.15	.18	.20	.21	.23	.25	.28	.30	.31	.33	.35	.36	.38	.39	.40	.41	.43	.44	.44
	091	105	124	145	167	192	217	248	275	301	327	352	390	413	435	456	475	494	515	531	547	562	576	590	590
45	.02	.03	.04	.06	.07	.09	.11	.13	.15	.17	.19	.20	.23	.25	.27	.28	.30	.31	.33	.34	.35	.37	.38	.39	.39
	027	041	059	080	103	127	152	183	209	235	260	285	323	346	368	388	408	426	447	464	480	496	511	525	525

... SIGNIFIES COS 2 = 1.
ADD 1000 TO VALUES PRECEDED BY *

SOLAR PARAMETERS COS 2
XO (W/M-2.)

TABLE B-1

36 N

JAN-APR

MST	DATE												
	JAN			FEB			MAR			APR			
	1	5	10	15	20	25	30	5	10	15	20	25	30
1700	.00 .00 .00 .01 .03 .04 .06 000 000 000 014 037 061 085	.08 .10 .12 .14 .16 116 141 167 192 217	.18 .20 .22 .23 .25 .26 255 277 298 319 339 357	.28 .29 .30 .32 .33 .34 379 395 412 428 444 459	.23 .21 .25 .27 .28 .29 309 325 343 360 376 391	.17 .19 .20 .21 .23 .24 238 255 273 290 307 323	.12 .14 .15 .16 .18 .19 166 185 202 220 237 254	.07 .03 .10 .11 .12 .14 094 113 131 150 167 185	.02 .03 .04 .06 .07 .09 022 041 060 079 098 116	.00 .00 .00 .01 .02 .04 000 000 000 009 028 047	.00 .00 .00 .00 .00 .00 000 000 000 000 000 000		
15	.00 .00 .00 .00 .00 .00 .01 000 000 000 000 000 000 017	.03 .05 .07 .09 .11 047 072 098 122 147	.13 .15 .17 .18 .20 .21 184 206 228 248 268 287	.23 .21 .25 .27 .28 .29 309 325 343 360 376 391	.17 .19 .20 .21 .23 .24 238 255 273 290 307 323	.12 .14 .15 .16 .18 .19 166 185 202 220 237 254	.07 .03 .10 .11 .12 .14 094 113 131 150 167 185	.02 .03 .04 .06 .07 .09 022 041 060 079 098 116	.00 .00 .00 .01 .02 .04 000 000 000 009 028 047	.00 .00 .00 .00 .00 .00 000 000 000 000 000 000			
30	.00 .00 .00 .00 .00 .00 .00 000 000 000 000 000 000 000	.00 .00 .02 .04 .05 000 002 027 052 076	.08 .10 .11 .13 .14 .16 113 135 156 177 197 216	.23 .21 .25 .27 .28 .29 309 325 343 360 376 391	.17 .19 .20 .21 .23 .24 238 255 273 290 307 323	.12 .14 .15 .16 .18 .19 166 185 202 220 237 254	.07 .03 .10 .11 .12 .14 094 113 131 150 167 185	.02 .03 .04 .06 .07 .09 022 041 060 079 098 116	.00 .00 .00 .01 .02 .04 000 000 000 009 028 047	.00 .00 .00 .00 .00 .00 000 000 000 000 000 000			
45	.00 .00 .00 .00 .00 .00 .00 000 000 000 000 000 000 000	.00 .00 .00 .00 .00 .00 000 000 000 000 000 000 000	.03 .05 .06 .08 .09 .11 040 062 084 104 124 144	.23 .21 .25 .27 .28 .29 309 325 343 360 376 391	.17 .19 .20 .21 .23 .24 238 255 273 290 307 323	.12 .14 .15 .16 .18 .19 166 185 202 220 237 254	.07 .03 .10 .11 .12 .14 094 113 131 150 167 185	.02 .03 .04 .06 .07 .09 022 041 060 079 098 116	.00 .00 .00 .01 .02 .04 000 000 000 009 028 047	.00 .00 .00 .00 .00 .00 000 000 000 000 000 000			
1800	.00 .00 .00 .00 .00 .00 .00 000 000 000 000 000 000 000	.00 .00 .00 .00 .00 .00 000 000 000 000 000 000 000	.00 .00 .01 .02 .04 .05 000 000 011 031 052 071	.23 .21 .25 .27 .28 .29 309 325 343 360 376 391	.17 .19 .20 .21 .23 .24 238 255 273 290 307 323	.12 .14 .15 .16 .18 .19 166 185 202 220 237 254	.07 .03 .10 .11 .12 .14 094 113 131 150 167 185	.02 .03 .04 .06 .07 .09 022 041 060 079 098 116	.00 .00 .00 .01 .02 .04 000 000 000 009 028 047	.00 .00 .00 .00 .00 .00 000 000 000 000 000 000			
15	.00 .00 .00 .00 .00 .00 .00 000 000 000 000 000 000 000	.00 .00 .00 .00 .00 .00 000 000 000 000 000 000 000	.00 .00 .00 .00 .00 .00 000 000 000 000 000 000 000	.23 .21 .25 .27 .28 .29 309 325 343 360 376 391	.17 .19 .20 .21 .23 .24 238 255 273 290 307 323	.12 .14 .15 .16 .18 .19 166 185 202 220 237 254	.07 .03 .10 .11 .12 .14 094 113 131 150 167 185	.02 .03 .04 .06 .07 .09 022 041 060 079 098 116	.00 .00 .00 .01 .02 .04 000 000 000 009 028 047	.00 .00 .00 .00 .00 .00 000 000 000 000 000 000			
30	.00 .00 .00 .00 .00 .00 .00 000 000 000 000 000 000 000	.00 .00 .00 .00 .00 .00 000 000 000 000 000 000 000	.00 .00 .00 .00 .00 .00 000 000 000 000 000 000 000	.23 .21 .25 .27 .28 .29 309 325 343 360 376 391	.17 .19 .20 .21 .23 .24 238 255 273 290 307 323	.12 .14 .15 .16 .18 .19 166 185 202 220 237 254	.07 .03 .10 .11 .12 .14 094 113 131 150 167 185	.02 .03 .04 .06 .07 .09 022 041 060 079 098 116	.00 .00 .00 .01 .02 .04 000 000 000 009 028 047	.00 .00 .00 .00 .00 .00 000 000 000 000 000 000			
45	.00 .00 .00 .00 .00 .00 .00 000 000 000 000 000 000 000	.00 .00 .00 .00 .00 .00 000 000 000 000 000 000 000	.00 .00 .00 .00 .00 .00 000 000 000 000 000 000 000	.23 .21 .25 .27 .28 .29 309 325 343 360 376 391	.17 .19 .20 .21 .23 .24 238 255 273 290 307 323	.12 .14 .15 .16 .18 .19 166 185 202 220 237 254	.07 .03 .10 .11 .12 .14 094 113 131 150 167 185	.02 .03 .04 .06 .07 .09 022 041 060 079 098 116	.00 .00 .00 .01 .02 .04 000 000 000 009 028 047	.00 .00 .00 .00 .00 .00 000 000 000 000 000 000			

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY .

SOLAR PARAMETERS COS Z
XO (W/M**2.)

JAN-APR 36 N TABLE B-1

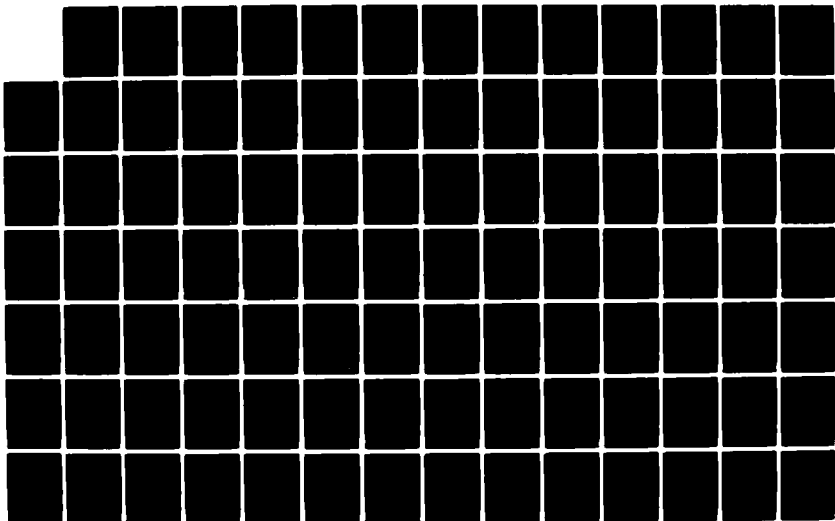
AD-A148 096

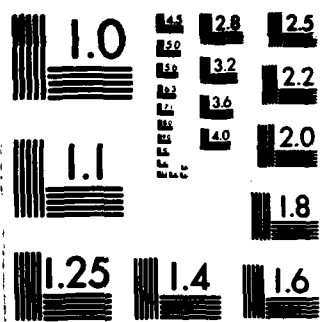
OPERATIONAL TACTICAL DECISION AID (OTDA) FOR INFRARED
(8-12 MICROMETERS)...(U) SYSTEMS AND APPLIED SCIENCES
CORP VIENNA VA D B HODGES 30 SEP 83 SCIENTIFIC-8-VOL-3
AFGL-TR-83-0334-VOL-3 F19628-81-C-0042 F/G 4/1

2/4

UNCLASSIFIED

NL





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

MST	MAY					JUN					JUL					AUG				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30		
0800	.56	.57	.58	.59	.60	.60	.60	.60	.60	.60	.59	.59	.54	.53	.52	.51	.50	.49		
15	.755	.769	.780	.789	.795	.800	.802	.802	.800	.797	.792	.787	.780	.772	.764	.755	.745	.735		
30	.60	.62	.63	.63	.64	.64	.65	.65	.65	.64	.64	.64	.63	.63	.62	.61	.60	.60		
45	.813	.826	.837	.845	.851	.855	.857	.857	.855	.852	.847	.842	.835	.828	.820	.811	.802	.792		
0900	.65	.66	.67	.67	.68	.68	.68	.69	.68	.68	.68	.68	.67	.67	.66	.65	.65	.64		
15	.868	.880	.891	.898	.904	.908	.910	.909	.907	.904	.900	.895	.888	.881	.874	.866	.857	.848		
30	.72	.73	.74	.75	.75	.76	.76	.75	.76	.76	.75	.75	.75	.74	.74	.73	.72	.72		
45	.920	.932	.942	.949	.955	.958	.960	.959	.957	.954	.950	.945	.939	.933	.925	.917	.909	.900		
1000	.72	.73	.74	.75	.75	.76	.76	.75	.76	.76	.75	.75	.75	.74	.74	.73	.72	.72		
15	.969	.981	.990	.997	.002	.005	.007	.006	.004	.002	.998	.993	.987	.981	.974	.967	.959	.950		
30	.75	.76	.77	.78	.78	.79	.79	.79	.79	.79	.78	.78	.78	.78	.77	.76	.76	.75		
45	.015	.026	.035	.042	.047	.049	.051	.050	.049	.046	.042	.037	.032	.026	.020	.013	.005	.997		
1100	.79	.80	.80	.81	.82	.82	.82	.82	.82	.82	.82	.82	.81	.81	.80	.80	.79	.78		
15	.058	.068	.077	.083	.088	.090	.092	.091	.090	.087	.083	.079	.074	.068	.062	.056	.048	.041		
30	.82	.83	.83	.84	.84	.85	.85	.85	.85	.85	.84	.84	.84	.84	.83	.83	.82	.81		
45	.097	.107	.115	.121	.125	.128	.129	.129	.127	.125	.121	.117	.113	.107	.102	.095	.088	.081		
1200	.84	.85	.86	.86	.87	.87	.88	.88	.88	.87	.87	.87	.87	.86	.86	.85	.85	.84		
15	.132	.142	.150	.155	.159	.162	.163	.163	.161	.159	.156	.152	.143	.143	.137	.131	.125	.118		
30	.87	.87	.88	.89	.89	.90	.90	.90	.90	.90	.90	.89	.89	.89	.88	.88	.87	.87		
45	.164	.173	.180	.186	.190	.192	.193	.193	.192	.190	.187	.183	.179	.175	.170	.164	.158	.151		
1300	.89	.89	.90	.91	.91	.92	.92	.92	.92	.92	.92	.91	.91	.91	.90	.90	.89	.89		
15	.191	.200	.207	.212	.216	.218	.220	.220	.218	.217	.214	.211	.207	.203	.198	.193	.187	.180		
30	.90	.91	.92	.92	.93	.93	.93	.94	.94	.94	.93	.93	.93	.93	.92	.92	.91	.91		
45	.214	.223	.230	.235	.238	.241	.242	.242	.241	.240	.237	.234	.231	.227	.223	.217	.212	.205		

TABLE B-1 SOLAR PARAMETERS COS Z (W/M*2.) *** SIGNIFIES COS Z =1. ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					JUL					AUG								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30						
1400	.83	.84	.85	.85	.86	.86	.87	.87	.88	.88	.88	.88	.88	.88	.88	.87	.87	.86	.85	.84	.83	.82	.80	.79
	.116	.125	.132	.139	.145	.150	.155	.159	.162	.165	.166	.167	.167	.165	.163	.159	.154	.147	.136	.125	.112	.096	.079	.059
15	.80	.81	.82	.83	.83	.84	.84	.85	.85	.85	.86	.86	.86	.86	.85	.85	.84	.84	.83	.82	.81	.79	.78	.76
	.079	.080	.086	.096	.103	.109	.121	.125	.128	.131	.133	.134	.133	.132	.130	.126	.120	.113	.102	.090	.077	.061	.043	.022
30	.77	.78	.79	.80	.80	.81	.81	.82	.82	.83	.83	.83	.83	.83	.83	.82	.82	.81	.80	.79	.78	.76	.75	.73
	.039	.048	.056	.063	.070	.076	.082	.087	.091	.094	.093	.097	.097	.096	.093	.089	.083	.076	.064	.052	.033	.021	.003	.982
45	.74	.75	.76	.76	.77	.78	.78	.79	.79	.80	.80	.80	.80	.80	.80	.79	.79	.78	.77	.75	.75	.73	.72	.70
	.994	.004	.012	.020	.027	.034	.041	.046	.050	.053	.055	.057	.057	.056	.053	.049	.043	.035	.023	.010	.995	.978	.959	.937
1500	.70	.71	.72	.73	.74	.74	.75	.75	.76	.76	.76	.77	.77	.76	.76	.76	.75	.75	.74	.72	.71	.70	.68	.66
	.947	.956	.965	.974	.981	.988	.996	.001	.006	.009	.012	.013	.014	.012	.010	.005	.999	.991	.978	.965	.950	.932	.912	.889
15	.67	.68	.68	.69	.70	.71	.71	.72	.72	.73	.73	.73	.73	.73	.73	.72	.72	.71	.70	.69	.67	.66	.64	.62
	.896	.906	.916	.924	.933	.940	.948	.954	.959	.963	.965	.967	.967	.966	.963	.959	.952	.943	.930	.917	.901	.882	.861	.838
30	.63	.64	.64	.65	.66	.67	.68	.68	.69	.69	.69	.69	.69	.69	.69	.68	.67	.67	.66	.65	.64	.62	.60	.58
	.842	.853	.863	.872	.881	.889	.897	.904	.909	.913	.916	.918	.918	.917	.914	.909	.902	.893	.879	.865	.849	.829	.808	.784
45	.58	.59	.60	.61	.62	.63	.64	.64	.65	.65	.65	.65	.65	.65	.65	.64	.63	.63	.62	.61	.59	.58	.56	.54
	.786	.797	.808	.818	.827	.835	.844	.851	.856	.861	.864	.866	.866	.865	.862	.857	.850	.840	.826	.811	.794	.774	.752	.727
1600	.54	.55	.56	.57	.58	.59	.59	.60	.60	.61	.61	.61	.61	.61	.61	.60	.59	.59	.58	.57	.55	.54	.52	.50
	.727	.739	.750	.760	.770	.779	.789	.796	.802	.806	.810	.812	.812	.811	.807	.802	.795	.785	.769	.754	.735	.716	.693	.668
15	.50	.51	.52	.53	.53	.54	.55	.56	.56	.57	.57	.57	.57	.57	.57	.56	.55	.55	.53	.52	.51	.49	.47	.45
	.666	.679	.690	.701	.711	.721	.731	.739	.745	.750	.753	.755	.755	.754	.751	.745	.737	.727	.711	.695	.676	.655	.632	.606
30	.45	.46	.47	.48	.49	.50	.51	.51	.52	.52	.53	.53	.53	.53	.52	.52	.51	.50	.49	.49	.46	.44	.42	.40
	.604	.616	.629	.640	.651	.661	.672	.679	.686	.691	.695	.697	.697	.696	.692	.686	.679	.667	.650	.634	.615	.593	.569	.542
45	.40	.41	.42	.43	.44	.45	.46	.47	.47	.48	.48	.48	.48	.48	.48	.47	.46	.46	.44	.43	.41	.40	.38	.35
	.539	.553	.565	.577	.589	.599	.611	.619	.626	.631	.635	.637	.637	.636	.632	.625	.617	.605	.588	.571	.551	.529	.504	.476

TABLE 8-1 SOLAR PARAMETERS COS Z *** SIGNIFIES COS Z = 1.
 MAY-AUG 36 N XO (W/M*2.) ADD 1000 TO VALUES PRECEDED BY *

MST	DATE																		
	MAY				JUN				JUL				AUG						
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1700	.35	.36	.37	.38	.39	.40	.41	.42	.43	.43	.43	.42	.41	.39	.33	.35	.35	.33	.30
	473	487	501	513	525	536	548	557	564	570	563	554	542	524	506	486	463	437	409
15	.30	.31	.33	.34	.35	.36	.37	.37	.38	.38	.39	.39	.36	.35	.33	.31	.30	.28	.25
	406	421	435	446	461	472	485	494	501	507	511	513	478	459	441	420	396	369	341
30	.25	.26	.28	.29	.30	.31	.32	.32	.33	.34	.34	.34	.31	.30	.28	.25	.25	.22	.20
	339	354	369	382	395	408	420	430	438	444	448	450	412	393	374	352	328	301	272
45	.20	.21	.23	.24	.25	.26	.27	.28	.28	.29	.29	.29	.26	.25	.23	.21	.19	.17	.15
	270	286	302	316	330	342	356	365	373	380	384	386	346	326	307	284	259	232	202
1800	.15	.16	.18	.19	.20	.21	.22	.23	.23	.24	.24	.24	.21	.20	.19	.16	.14	.12	.10
	202	218	234	249	264	277	291	301	309	315	320	322	280	259	233	216	190	162	132
15	.10	.11	.13	.14	.15	.16	.17	.18	.18	.19	.19	.19	.16	.14	.13	.11	.09	.07	.05
	133	151	167	183	198	211	226	236	244	251	255	257	213	192	171	147	121	092	061
30	.05	.06	.08	.09	.10	.11	.12	.13	.14	.14	.14	.15	.11	.09	.05	.05	.04	.02	.00
	065	083	100	117	132	146	161	172	180	187	191	193	147	125	103	079	052	023	000
45	.00	.01	.03	.04	.05	.06	.07	.08	.09	.09	.10	.10	.06	.04	.03	.01	.00	.00	.00
	000	017	034	051	067	082	097	108	117	123	127	129	081	058	035	011	000	000	000
1900	.00	.00	.00	.00	.00	.01	.03	.03	.04	.05	.05	.05	.01	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	003	034	045	054	060	065	066	015	000	000	000	000	000	000
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	003	004	000	000	000	000	000	000	000
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000

*** SIGNIFIES COS 2 =1.
ADD 1000 TO VALUES PRECEDED BY .

TABLE B-1 SOLAR PARAMETERS
X0 (W/M**2.)

MAY-AUG 36 N

MST	DATE																							
	SEP						OCT						NOV						DEC					
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30						
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000						
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000						
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000						
45	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
	034	017	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000						
0600	.08	.07	.05	.04	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
	105	088	071	053	035	016	000	000	000	000	000	000	000	000	000	000	000	000						
15	.13	.12	.11	.09	.08	.07	.05	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00						
	176	159	143	125	107	088	069	048	027	005	000	000	000	000	000	000	000	000						
30	.18	.17	.16	.15	.13	.12	.10	.09	.07	.06	.04	.02	.00	.00	.00	.00	.00	.00						
	246	230	214	196	179	160	140	120	098	076	053	029	000	000	000	000	000	000						
45	.23	.22	.21	.20	.18	.17	.15	.14	.12	.11	.09	.07	.05	.03	.02	.00	.00	.00						
	316	300	284	267	249	231	211	190	169	146	123	099	070	045	021	000	000	000						
0700	.29	.27	.26	.25	.23	.22	.21	.19	.17	.16	.14	.12	.10	.08	.06	.05	.03	.00						
	385	370	354	337	319	300	280	260	238	215	192	167	136	113	088	064	041	019						
15	.34	.32	.31	.30	.28	.27	.25	.24	.22	.20	.19	.17	.15	.13	.11	.09	.08	.06						
	453	438	422	405	387	368	349	328	306	283	259	234	204	179	154	130	106	084						
30	.39	.37	.36	.35	.33	.32	.30	.29	.27	.25	.23	.22	.19	.17	.16	.14	.12	.11						
	519	504	488	471	454	435	415	394	371	348	324	299	263	243	218	194	170	148						
45	.43	.42	.41	.39	.38	.37	.35	.33	.32	.30	.28	.26	.24	.22	.20	.18	.17	.15						
	583	568	553	536	518	499	479	458	435	412	387	362	331	306	280	256	232	210						

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY .

SOLAR PARAMETERS CCS Z
XO (W/M**2.)

TABLE B-1

SEP-DEC 36 N

PREVIOUS PAGE
IS BLANK

MST	SEP					OCT					DATE					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
0800	.48	.47	.45	.44	.43	.41	.40	.38	.36	.34	.32	.30	.28	.26	.24	.23	.21	.19	.18	.15	.15	.14	.14	.13	
	646	631	615	598	581	561	541	519	497	473	448	423	392	366	340	315	291	269	249	231	216	204	194	189	
18	.52	.51	.50	.48	.47	.45	.44	.42	.40	.38	.37	.35	.32	.30	.28	.27	.25	.23	.22	.20	.19	.19	.18	.18	
	705	691	675	658	640	621	600	579	556	531	506	481	449	423	397	372	349	326	306	289	274	262	253	247	
30	.57	.55	.54	.53	.51	.50	.48	.46	.44	.42	.41	.39	.36	.34	.32	.30	.29	.27	.26	.24	.23	.22	.22	.22	
	783	748	732	716	697	678	657	635	611	587	562	536	504	478	452	427	403	381	361	343	329	317	309	304	
48	.61	.59	.58	.57	.55	.54	.52	.50	.48	.46	.44	.42	.40	.38	.36	.34	.32	.31	.29	.28	.27	.26	.26	.25	
	817	803	787	770	751	732	710	688	664	639	614	588	556	529	503	478	454	432	413	395	381	370	362	358	
0900	.64	.63	.62	.60	.59	.57	.56	.54	.52	.50	.49	.46	.43	.41	.39	.38	.36	.34	.33	.32	.30	.30	.29	.29	
	869	854	838	821	802	782	761	736	714	689	663	636	604	577	551	526	503	481	461	441	430	419	412	408	
15	.68	.67	.65	.64	.62	.61	.59	.57	.55	.53	.51	.49	.47	.45	.43	.41	.39	.37	.36	.35	.34	.33	.32	.32	
	917	902	886	868	849	829	807	784	760	734	708	681	649	622	596	571	547	526	506	490	476	466	459	456	
30	.71	.70	.69	.67	.66	.64	.62	.60	.58	.56	.54	.52	.50	.47	.46	.44	.42	.40	.39	.38	.37	.36	.36	.35	
	961	946	930	912	893	872	850	827	802	776	750	723	690	663	637	612	589	567	548	532	519	509	503	500	
48	.74	.73	.72	.70	.68	.67	.65	.63	.61	.59	.57	.55	.52	.50	.48	.46	.45	.43	.42	.40	.40	.39	.38	.38	
	1002	987	971	952	933	912	889	865	840	814	787	760	727	700	674	649	626	605	586	570	558	548	543	541	
1000	.77	.76	.74	.73	.71	.69	.67	.65	.63	.61	.59	.57	.55	.53	.51	.49	.47	.45	.44	.43	.42	.41	.41	.41	
	1039	1024	1007	989	969	947	924	900	874	848	821	793	760	733	707	683	660	639	620	605	593	584	579	578	
15	.80	.78	.77	.75	.73	.72	.70	.68	.66	.64	.61	.59	.57	.55	.53	.51	.49	.48	.46	.45	.44	.44	.43	.43	
	1072	1057	1039	1021	1000	978	955	930	904	878	850	823	789	762	736	712	689	668	651	636	624	616	611	611	
30	.82	.80	.79	.77	.75	.74	.72	.70	.67	.65	.63	.61	.58	.56	.54	.53	.51	.49	.48	.47	.46	.46	.45	.45	
	1101	1085	1068	1048	1027	1005	981	956	930	903	875	847	814	787	761	737	714	694	677	662	651	644	640	640	
48	.84	.82	.81	.79	.77	.75	.73	.71	.69	.67	.65	.62	.60	.58	.56	.54	.52	.51	.50	.49	.48	.47	.47	.47	
	1128	1095	1091	1072	1050	1027	1003	978	951	924	896	868	834	808	782	757	735	715	698	685	674	667	664	665	

SEP-DEC 36 M TABLE B-1 SOLAR PARAMETERS COS Z *** SIGNIFIFES COS Z =1.
ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					DATE					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1100	.85 .84 .82 .80 .78 .77						.74 .72 .70 .68 .66 .64						.61 .59 .57 .55 .54 .52						.51 .50 .49 .48 .48 .48						
	.146.129.111.090.069.045						.021 995 968 940 912 884						850 823 798 774 752 732						716 703 693 687 684 686						
15	.86 .85 .83 .81 .79 .77						.75 .73 .71 .69 .67 .64						.62 .60 .58 .56 .54 .53						.52 .51 .50 .50 .49 .50						
	.162.144.125.105.082.058						.033.007 979 951 923 895						861 835 809 785 764 745						729 715 707 701 700 702						
30	.87 .85 .84 .82 .80 .78						.76 .74 .72 .69 .67 .65						.62 .60 .58 .57 .55 .54						.52 .51 .51 .50 .50 .50						
	.173.155.136.114.091.067						.041.014 987 958 930 901						868 841 816 793 772 753						738 725 717 712 711 714						
45	.88 .86 .84 .82 .80 .78						.76 .74 .72 .70 .67 .65						.62 .60 .58 .57 .55 .54						.53 .52 .51 .51 .51 .51						
	.179.161.141.119.096.071						.045.017 989 961 932 903						870 843 818 795 775 757						742 730 722 718 718 721						
1200	.88 .86 .84 .82 .80 .78						.76 .74 .72 .69 .67 .65						.62 .60 .58 .57 .55 .54						.53 .52 .51 .51 .51 .51						
	.181.162.142.119.095.070						.043.015 987 958 929 901						867 841 816 793 773 756						741 730 723 720 720 724						
15	.87 .86 .84 .82 .80 .78						.76 .73 .71 .69 .67 .64						.62 .60 .58 .56 .55 .53						.52 .51 .51 .51 .51 .51						
	.179.159.138.115.090.064						.037.009 980 951 922 893						860 834 809 787 767 750						736 725 720 717 718 723						
30	.87 .85 .83 .81 .79 .77						.75 .73 .70 .68 .66 .63						.61 .59 .57 .55 .54 .53						.52 .51 .50 .50 .50 .51						
	.171.151.129.106.080.054						.026 998 968 939 910 831						848 822 798 776 757 740						727 717 711 709 711 717						
45	.86 .84 .82 .80 .78 .76						.74 .71 .69 .67 .64 .62						.60 .58 .56 .54 .53 .52						.51 .50 .49 .49 .50 .50						
	.159.139.118.092.066.039						.011 982 952 922 893 864						831 806 782 760 741 726						713 704 699 697 700 706						
1300	.85 .83 .81 .79 .77 .75						.72 .70 .68 .65 .63 .61						.58 .56 .54 .53 .51 .50						.49 .48 .48 .48 .48 .49						
	.143.121.098.073.047.019						.991 961 931 901 872 843						810 785 761 740 722 707						695 687 682 681 684 691						
15	.83 .81 .79 .77 .75 .73						.70 .68 .66 .63 .61 .59						.50 .54 .53 .51 .50 .49						.48 .47 .47 .47 .47 .48						
	.122.100.076.050.023 995						.966 936 906 876 846 818						785 760 737 716 698 683						672 665 661 661 664 672						
30	.81 .79 .77 .75 .73 .71						.68 .66 .64 .61 .59 .57						.54 .52 .51 .49 .48 .47						.46 .45 .45 .45 .45 .46						
	.096.074.049.023 995 967						.937 907 876 846 816 788						755 730 707 687 670 656						645 632 635 636 640 648						
45	.79 .77 .75 .73 .71 .68						.66 .64 .61 .59 .56 .54						.52 .50 .48 .47 .45 .44						.44 .43 .43 .43 .43 .44						
	.067.044.018 991 963 934						.904 873 842 812 782 754						721 697 674 655 638 624						614 603 606 607 612 621						

SEP-DEC 36 N TABLE B-1 SOLAR PARAMETERS COS Z ... SIGNIFIES COS Z = 1.
 ADD 1000 TO VALUES PRECEDED BY .

MST

	SEP					OCT					NOV					DEC								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1400	.77	.75	.73	.70	.68	.66	.63	.61	.58	.56	.54	.52	.49	.47	.46	.44	.43	.42	.41	.41	.41	.41	.41	.42
	.033	.009	.983	.956	.927	.897	.866	.835	.804	.774	.744	.715	.683	.659	.637	.618	.602	.589	.580	.574	.572	.574	.579	.589
15	.74	.72	.70	.67	.65	.63	.60	.58	.55	.53	.51	.48	.46	.44	.43	.41	.40	.39	.38	.38	.35	.38	.38	.39
	.995	.971	.944	.916	.886	.856	.825	.793	.762	.732	.702	.673	.642	.618	.596	.577	.562	.550	.541	.535	.534	.537	.543	.553
30	.71	.69	.67	.64	.62	.59	.57	.54	.52	.50	.47	.45	.43	.41	.39	.38	.37	.36	.35	.35	.35	.35	.36	.36
	.954	.928	.901	.872	.842	.811	.780	.748	.716	.686	.656	.628	.596	.573	.551	.533	.518	.507	.498	.491	.493	.496	.503	.513
45	.67	.65	.63	.61	.58	.56	.53	.51	.48	.46	.44	.42	.39	.38	.36	.35	.34	.33	.32	.32	.32	.32	.33	.33
	.909	.882	.854	.825	.794	.763	.731	.699	.667	.636	.607	.578	.547	.524	.503	.486	.471	.460	.453	.449	.449	.452	.460	.470
1500	.64	.62	.59	.57	.55	.52	.50	.47	.45	.42	.40	.38	.36	.34	.32	.31	.30	.29	.29	.23	.28	.29	.29	.30
	.880	.833	.804	.774	.743	.711	.679	.646	.614	.584	.554	.526	.495	.472	.452	.435	.421	.410	.403	.400	.401	.405	.413	.424
15	.60	.58	.55	.53	.51	.48	.46	.43	.41	.38	.36	.34	.32	.30	.28	.27	.26	.25	.25	.25	.25	.25	.26	.26
	.808	.780	.751	.720	.688	.656	.623	.591	.559	.528	.498	.470	.440	.417	.397	.381	.367	.358	.351	.349	.350	.354	.362	.374
30	.56	.54	.51	.49	.46	.44	.41	.39	.36	.34	.32	.30	.27	.26	.24	.23	.22	.21	.21	.21	.21	.21	.22	.23
	.753	.725	.695	.663	.631	.598	.565	.532	.500	.469	.439	.412	.382	.360	.340	.324	.311	.302	.296	.294	.295	.301	.309	.321
45	.52	.49	.47	.44	.42	.39	.37	.34	.32	.30	.27	.25	.23	.21	.20	.19	.18	.17	.17	.17	.17	.17	.18	.19
	.695	.666	.635	.604	.571	.537	.504	.471	.439	.408	.378	.351	.321	.299	.280	.265	.252	.244	.238	.237	.239	.244	.253	.266
1600	.47	.45	.42	.40	.37	.35	.32	.30	.27	.25	.23	.21	.19	.17	.16	.15	.14	.13	.13	.13	.13	.13	.14	.15
	.635	.605	.574	.541	.508	.474	.441	.407	.375	.344	.315	.288	.258	.237	.218	.203	.191	.183	.178	.177	.180	.186	.195	.208
15	.42	.40	.38	.35	.33	.30	.27	.25	.22	.20	.18	.16	.14	.12	.11	.10	.09	.09	.08	.03	.08	.09	.10	.10
	.572	.542	.510	.477	.443	.409	.375	.342	.309	.278	.249	.222	.193	.172	.154	.139	.128	.120	.116	.115	.118	.125	.134	.147
30	.38	.35	.33	.30	.28	.25	.22	.20	.18	.15	.13	.11	.09	.08	.06	.05	.04	.04	.04	.04	.04	.04	.05	.06
	.507	.476	.444	.411	.376	.342	.308	.274	.242	.211	.182	.155	.126	.106	.088	.074	.063	.056	.052	.052	.055	.062	.072	.085
45	.33	.30	.28	.25	.23	.20	.17	.15	.13	.10	.08	.06	.04	.03	.02	.01	.00	.00	.00	.00	.00	.00	.01	.01
	.441	.409	.376	.342	.308	.273	.239	.205	.173	.142	.113	.086	.058	.038	.021	.007	.000	.000	.000	.000	.000	.000	.007	.020

SEP-DEC 36 N TABLE B-1 SOLAR PARAMETERS COS Z ** SIGNIFIES COS Z = 1.
 X0 (W/M=2.) ADD 1000 TO VALUES PRECEDED BY *

MST	DATE												APR																							
	JAN				FEB				MAR				5				10				15				20				25				30			
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30					
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00					
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000					
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00					
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000					
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00					
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000					
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00					
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000					
0600	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00					
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000					
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00					
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000					
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00					
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000					
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00					
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000					
0700	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00					
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000					
15	.02	.01	.01	.02	.02	.03	.04	.05	.07	.09	.11	.13	.16	.19	.21	.23	.26	.28	.31	.33	.35	.37	.39	.41	.425	.455	.482	.507	.530	.550	.550					
	022	019	019	023	030	041	055	076	097	120	147	175	224	257	290	323	356	388	425	455	482	507	530	550	550	550	550	550	550	550						
30	.06	.06	.06	.06	.07	.08	.09	.10	.12	.14	.16	.18	.21	.24	.26	.29	.31	.33	.36	.38	.40	.42	.44	.46	.495	.523	.550	.574	.596	.616	.616					
	088	086	087	091	098	110	124	146	167	191	218	246	296	328	361	394	426	458	495	523	550	574	596	616	616	616	616	616	616	616						
45	.11	.11	.11	.11	.12	.13	.14	.15	.17	.19	.21	.23	.26	.29	.31	.34	.36	.38	.41	.43	.45	.47	.49	.50	.562	.590	.615	.640	.661	.680	.680					
	153	151	152	157	165	177	192	214	236	261	287	316	366	398	431	463	495	527	562	590	615	640	661	680	680	680	680	680	680	680	680					

... SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

SOLAR PARAMETERS COS Z
X0 (W/M*2.)

TABLE B-1

JAN-APR 34 N

MST	JAN							FEB							MAR							APR						
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30			
0800	.15	.15	.15	.16	.16	.17	.18	.20	.22	.23	.25	.28	.31	.34	.36	.38	.41	.43	.46	.46	.44	.50	.52	.54	.55			
	216	214	216	221	230	242	258	281	303	328	355	384	434	466	488	530	562	593		628	655	631	704	724	742			
15	.20	.20	.20	.20	.21	.22	.23	.25	.26	.28	.30	.32	.36	.38	.41	.43	.46	.48		.51	.53	.55	.56	.58	.59			
	276	275	278	284	293	306	322	345	368	393	421	450	493	531	563	595	627	657		691	713	742	765	785	802			
30	.24	.24	.24	.24	.25	.26	.27	.29	.31	.33	.35	.37	.40	.43	.45	.48	.50	.52		.55	.57	.59	.61	.62	.64			
	334	334	337	343	353	367	383	408	431	456	484	513	563	594	625	658	689	718		752	773	802	823	842	859			
45	.28	.28	.28	.28	.29	.30	.31	.33	.35	.37	.39	.41	.45	.47	.50	.52	.54	.57		.59	.61	.63	.65	.66	.68			
	390	390	393	400	411	425	442	467	490	516	544	574	623	654	686	717	748	777		809	835	858	879	897	913			
0900	.31	.31	.32	.32	.33	.34	.35	.37	.39	.41	.43	.45	.49	.51	.54	.56	.58	.61		.63	.65	.67	.69	.70	.72			
	442	443	447	454	466	480	498	523	547	573	602	631	680	712	743	774	803	832		864	883	911	931	949	964			
15	.35	.35	.35	.36	.37	.38	.39	.41	.43	.45	.47	.49	.53	.55	.58	.60	.62	.64		.67	.69	.71	.72	.74	.75			
	491	492	497	505	517	532	551	577	601	627	656	685	734	766	796	827	856	884		915	933	951	980	997	012			
30	.38	.38	.38	.39	.40	.41	.43	.45	.46	.48	.50	.53	.56	.59	.61	.64	.66	.68		.70	.72	.74	.76	.77	.78			
	537	538	544	553	565	581	600	627	651	678	706	736	785	816	846	876	905	932		963	983	007	026	042	056			
45	.41	.41	.42	.42	.43	.44	.46	.48	.50	.52	.54	.56	.60	.62	.65	.67	.69	.71		.74	.75	.77	.79	.80	.81			
	579	581	587	597	610	626	646	673	698	725	753	783	832	862	893	922	950	977		007	023	050	068	083	097			
1000	.44	.44	.44	.45	.46	.47	.49	.51	.53	.55	.57	.59	.63	.65	.68	.70	.72	.74		.77	.78	.80	.82	.83	.84			
	617	620	626	637	651	668	688	715	741	768	797	826	875	905	935	964	991	017		046	063	088	105	121	134			
15	.46	.46	.47	.48	.49	.50	.52	.54	.55	.58	.60	.62	.66	.68	.70	.73	.75	.77		.79	.81	.83	.84	.85	.86			
	651	654	662	673	688	705	726	754	779	807	836	865	914	943	973	001	028	054		082	103	122	139	154	166			
30	.48	.48	.49	.50	.51	.52	.54	.56	.58	.60	.62	.64	.68	.70	.73	.75	.77	.79		.81	.83	.85	.86	.87	.89			
	681	685	693	705	720	738	760	788	814	842	870	900	948	978	007	035	061	086		113	134	152	169	183	195			
45	.50	.50	.51	.52	.53	.54	.56	.58	.60	.62	.64	.67	.70	.73	.75	.77	.79	.81		.83	.85	.87	.88	.89	.90			
	707	711	720	733	749	767	789	818	844	872	901	930	978	007	036	063	089	114		140	160	178	194	207	219			

JAN-APR 34 N TABLE B-1 SOLAR PARAMETERS COS Z
 XO (W/M**2) *** SIGNIFIES COS Z = 1.
 ADD 1000 TO VALUES PRECEDED BY *

MST	JAN							FEB							MAR							APR						
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30			
100	.52	.52	.53	.54	.55	.56	.58	.60	.62	.64	.66	.69	.72	.74	.77	.79	.81	.83	.85	.87	.88	.89	.90	.91	.92			
	728	734	743	756	773	792	814	843	870	898	927	956	*004	.033	.061	.088	.113	.137	*163	.182	.191	.214	.227	*238				
15	.53	.53	.54	.55	.56	.58	.59	.61	.63	.66	.68	.70	.74	.76	.78	.80	.82	.84	.86	.88	.89	.91	.92	.93				
	745	751	761	775	792	812	835	864	891	919	948	978	*024	.052	.081	.107	.132	.155	*180	.191	.216	.230	*243	*254				
30	.54	.54	.55	.56	.57	.59	.60	.63	.65	.67	.69	.71	.75	.77	.79	.81	.83	.85	.87	.89	.90	.92	.93	.94				
	758	764	775	790	807	828	851	881	908	936	965	994	*041	.069	.096	.122	.146	.169	*193	.212	.228	.242	*254	*264				
45	.54	.55	.55	.57	.58	.59	.61	.63	.65	.68	.70	.72	.76	.78	.80	.82	.84	.86	.88	.89	.91	.92	.93	.94				
	766	773	784	799	818	839	862	892	920	948	977	*006	*052	.080	.106	.132	.156	.178	*201	.219	.235	.249	*260	*270				
1200	.54	.55	.56	.57	.58	.60	.62	.64	.66	.68	.70	.73	.76	.78	.80	.82	.84	.86	.88	.90	.91	.92	.93	.94				
	769	777	789	805	823	845	868	899	927	955	984	*013	*053	.086	.112	.137	.160	.182	*205	.222	.237	.251	*262	*272				
15	.54	.55	.56	.57	.58	.60	.62	.64	.66	.68	.70	.73	.76	.78	.80	.82	.84	.86	.88	.89	.91	.92	.93	.94				
	788	776	789	805	824	846	870	901	929	957	985	*015	*060	.087	.113	.137	.160	.181	*203	.220	.235	.248	*259	*269				
30	.54	.54	.55	.57	.58	.60	.62	.64	.66	.68	.70	.72	.76	.78	.80	.82	.84	.86	.88	.89	.90	.91	.93	.93				
	762	771	784	801	821	843	867	899	926	954	983	*012	*059	.083	.108	.132	.155	.175	*197	.213	.228	.240	*251	*261				
45	.53	.54	.55	.56	.58	.59	.61	.63	.65	.68	.70	.72	.75	.77	.79	.81	.83	.85	.87	.89	.89	.91	.92	.93				
	752	761	775	792	812	835	859	891	919	947	975	*004	*048	.074	.099	.123	.144	.164	*186	.202	.218	.228	*239	*248				
1300	.52	.53	.54	.55	.57	.58	.60	.62	.65	.67	.69	.71	.74	.76	.78	.80	.82	.84	.86	.87	.87	.89	.90	.91				
	737	746	761	779	799	822	847	879	906	935	963	991	*033	.061	.085	.108	.129	.149	*170	.185	.199	.212	*222	*231				
15	.51	.51	.52	.54	.55	.57	.59	.61	.63	.65	.68	.70	.73	.75	.77	.79	.81	.82	.84	.85	.87	.88	.89	.90				
	717	727	742	761	781	805	830	862	889	918	945	974	*017	.042	.066	.089	.110	.129	*150	.165	.178	.190	*201	*210				
30	.49	.50	.51	.52	.54	.55	.57	.60	.62	.64	.66	.68	.71	.73	.75	.77	.79	.80	.82	.83	.83	.86	.87	.88				
	693	704	719	738	759	783	808	840	868	896	924	951	994	.019	.043	.065	.085	.104	*124	.139	.153	.165	*175	*184				
45	.47	.48	.49	.50	.52	.54	.55	.58	.60	.62	.64	.66	.70	.71	.73	.75	.77	.78	.80	.81	.83	.84	.85	.86				
	655	675	693	711	733	756	782	814	842	869	897	925	967	.011	.015	.036	.057	.075	*095	.110	.123	.134	*145	*154				

JAN-APR 34 N TABLE B-1 SOLAR PARAMETERS COS Z ... SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY .

MST	JAN							FEB							MAR							APR									
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1400	45	46	47	48	50	51	53	56	58	60	62	64	67	69	71	73	74	76	78	79	80	81	82	83	84	85	86	87	88	89	90
	633	644	660	680	702	726	751	783	811	839	866	893	920	948	976	1004	1032	1060	1088	1116	1144	1172	1200	1228	1256	1284	1312	1340	1368	1396	1424
15	42	43	44	46	47	49	51	53	55	57	59	61	63	65	67	69	71	73	75	77	79	81	83	85	87	89	91	93	95	97	99
	596	608	625	645	667	691	716	738	776	803	831	858	886	914	942	970	998	1026	1054	1082	1110	1138	1166	1194	1222	1250	1278	1306	1334	1362	1390
30	39	40	41	43	44	46	48	50	52	55	57	59	61	63	65	67	69	71	73	75	77	79	81	83	85	87	89	91	93	95	97
	556	568	585	605	628	652	677	709	737	764	791	818	845	873	900	928	956	984	1012	1040	1068	1096	1124	1152	1180	1208	1236	1264	1292	1320	1348
45	36	37	38	40	41	43	45	47	49	51	53	55	57	59	61	63	65	67	69	71	73	75	77	79	81	83	85	87	89	91	93
	512	524	542	562	585	609	634	666	694	721	748	774	801	828	855	882	909	936	963	990	1017	1044	1071	1098	1125	1152	1179	1206	1233	1260	1287
1500	33	34	35	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80	82	84	86	88	90
	464	477	495	515	538	562	588	620	647	674	700	726	752	778	804	830	856	882	908	934	960	986	1012	1038	1064	1090	1116	1142	1168	1194	1220
15	29	30	31	33	35	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80	82	84	86
	414	426	444	465	488	512	538	569	596	623	649	674	700	726	752	778	804	830	856	882	908	934	960	986	1012	1038	1064	1090	1116	1142	1168
30	25	26	28	29	31	33	34	37	39	41	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80	82
	360	372	391	412	434	459	484	515	542	568	594	620	646	672	698	724	750	776	802	828	854	880	906	932	958	984	1010	1036	1062	1088	1114
45	21	22	24	25	27	29	30	33	35	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78
	303	316	334	355	378	402	427	458	485	511	537	561	586	612	638	664	690	716	742	768	794	820	846	872	898	924	950	976	1002	1028	1054
1600	17	18	19	21	23	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74
	243	256	275	296	319	343	368	399	425	450	476	500	525	550	575	600	625	650	675	700	725	750	775	800	825	850	875	900	925	950	975
15	13	14	15	17	18	20	22	24	26	28	29	31	33	35	37	39	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68
	182	195	213	234	257	281	306	336	362	387	412	437	462	487	512	537	562	587	612	637	662	687	712	737	762	787	812	837	862	887	912
30	08	09	11	12	14	15	17	19	21	23	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55	57	59	61	63	65
	118	131	150	170	193	216	241	271	297	322	347	370	395	420	445	470	495	520	545	570	595	620	645	670	695	720	745	770	795	820	845
45	04	05	06	07	09	11	12	15	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60
	052	065	084	104	127	150	175	204	229	254	279	302	327	352	377	402	427	452	477	502	527	552	577	602	627	652	677	702	727	752	777

*** SIGNIFIES COS 2 = 1.
ADD 1000 TO VALUES PRECEDED BY *

SOLAR PARAMETERS
XO (W/M**2.)

TABLE B-1

34 N

JAN-APR

MST	DATE																		
	JAN					FEB					MAR					APR			
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1700	.00 .00 .01 .03 .04 .06 .08 000 000 016 037 059 082 105	.10 .11 .13 .15 .17 136 160 185 209 232	.13 .21 .22 .24 .25 .26 269 293 308 327 345 363	.28 .29 .30 .32 .33 .34 382 393 413 428 442 456	.23 .24 .25 .26 .28 .29 311 327 342 357 372 386	.17 .19 .20 .21 .22 .23 238 251 270 286 301 316	.12 .13 .15 .16 .17 .18 164 181 198 214 230 246	.07 .08 .09 .11 .12 .13 091 103 125 142 159 175	.01 .02 .04 .05 .06 .08 017 035 052 070 087 104	.00 .02 .03 .00 .01 .03 000 000 000 000 016 034	.00 .03 .00 .00 .00 .00 000 000 000 000 000 000								
15	.00 .00 .00 .00 .00 .01 .03 000 000 000 000 000 013 036	.05 .06 .08 .10 .12 065 090 114 137 160	.14 .16 .17 .19 .20 .21 195 216 236 255 273 291	.23 .24 .25 .26 .28 .29 311 327 342 357 372 386	.17 .19 .20 .21 .22 .23 238 251 270 286 301 316	.12 .13 .15 .16 .17 .18 164 181 198 214 230 246	.07 .08 .09 .11 .12 .13 091 103 125 142 159 175	.01 .02 .04 .05 .06 .08 017 035 052 070 087 104	.00 .02 .03 .00 .01 .03 000 000 000 000 016 034	.00 .03 .00 .00 .00 .00 000 000 000 000 000 000									
30	.00 .00 .00 .00 .00 .00 .00 000 000 000 000 000 000 000	.00 .01 .03 .05 .06 000 018 041 065 087	.09 .10 .12 .13 .15 .16 122 143 163 182 200 218	.23 .24 .25 .26 .28 .29 311 327 342 357 372 386	.17 .19 .20 .21 .22 .23 238 251 270 286 301 316	.12 .13 .15 .16 .17 .18 164 181 198 214 230 246	.07 .08 .09 .11 .12 .13 091 103 125 142 159 175	.01 .02 .04 .05 .06 .08 017 035 052 070 087 104	.00 .02 .03 .00 .01 .03 000 000 000 000 016 034	.00 .03 .00 .00 .00 .00 000 000 000 000 000 000									
45	.00 .00 .00 .00 .00 .00 .00 000 000 000 000 000 000 000	.00 .00 .00 .00 .00 .01 000 000 000 000 000 014	.03 .05 .06 .08 .09 .11 048 069 088 107 125 144	.23 .24 .25 .26 .28 .29 311 327 342 357 372 386	.17 .19 .20 .21 .22 .23 238 251 270 286 301 316	.12 .13 .15 .16 .17 .18 164 181 198 214 230 246	.07 .08 .09 .11 .12 .13 091 103 125 142 159 175	.01 .02 .04 .05 .06 .08 017 035 052 070 087 104	.00 .02 .03 .00 .01 .03 000 000 000 000 016 034	.00 .03 .00 .00 .00 .00 000 000 000 000 000 000									
1800	.00 .00 .00 .00 .00 .00 .00 000 000 000 000 000 000 000	.00 .00 .00 .00 .00 .00 000 000 000 000 000 000 000	.00 .00 .01 .02 .04 .05 000 000 013 033 051 069	.23 .24 .25 .26 .28 .29 311 327 342 357 372 386	.17 .19 .20 .21 .22 .23 238 251 270 286 301 316	.12 .13 .15 .16 .17 .18 164 181 198 214 230 246	.07 .08 .09 .11 .12 .13 091 103 125 142 159 175	.01 .02 .04 .05 .06 .08 017 035 052 070 087 104	.00 .02 .03 .00 .01 .03 000 000 000 000 016 034	.00 .03 .00 .00 .00 .00 000 000 000 000 000 000									
15	.00 .00 .00 .00 .00 .00 .00 000 000 000 000 000 000 000	.00 .00 .00 .00 .00 .00 000 000 000 000 000 000 000	.00 .00 .00 .00 .00 .00 000 000 000 000 000 000 000	.23 .24 .25 .26 .28 .29 311 327 342 357 372 386	.17 .19 .20 .21 .22 .23 238 251 270 286 301 316	.12 .13 .15 .16 .17 .18 164 181 198 214 230 246	.07 .08 .09 .11 .12 .13 091 103 125 142 159 175	.01 .02 .04 .05 .06 .08 017 035 052 070 087 104	.00 .02 .03 .00 .01 .03 000 000 000 000 016 034	.00 .03 .00 .00 .00 .00 000 000 000 000 000 000									
30	.00 .00 .00 .00 .00 .00 .00 000 000 000 000 000 000 000	.00 .00 .00 .00 .00 .00 000 000 000 000 000 000 000	.00 .00 .00 .00 .00 .00 000 000 000 000 000 000 000	.23 .24 .25 .26 .28 .29 311 327 342 357 372 386	.17 .19 .20 .21 .22 .23 238 251 270 286 301 316	.12 .13 .15 .16 .17 .18 164 181 198 214 230 246	.07 .08 .09 .11 .12 .13 091 103 125 142 159 175	.01 .02 .04 .05 .06 .08 017 035 052 070 087 104	.00 .02 .03 .00 .01 .03 000 000 000 000 016 034	.00 .03 .00 .00 .00 .00 000 000 000 000 000 000									
45	.00 .00 .00 .00 .00 .00 .00 000 000 000 000 000 000 000	.00 .00 .00 .00 .00 .00 000 000 000 000 000 000 000	.00 .00 .00 .00 .00 .00 000 000 000 000 000 000 000	.23 .24 .25 .26 .28 .29 311 327 342 357 372 386	.17 .19 .20 .21 .22 .23 238 251 270 286 301 316	.12 .13 .15 .16 .17 .18 164 181 198 214 230 246	.07 .08 .09 .11 .12 .13 091 103 125 142 159 175	.01 .02 .04 .05 .06 .08 017 035 052 070 087 104	.00 .02 .03 .00 .01 .03 000 000 000 000 016 034	.00 .03 .00 .00 .00 .00 000 000 000 000 000 000									

*** SIGNIFIES COS Z =1.
ADD 1000 TO VALUES PRECEDED BY *

SOLAR PARAMETERS
X0 (W/M**2.)

TABLE B-1

JAN-APR 34 N

MST	MAY					JUN					JUL					AUG				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30		
0800	.56	.57	.58	.59	.60	.60	.60	.60	.60	.60	.59	.59	.58	.58	.57	.56	.55	.54	.54	.53
	758	771	781	789	795	798	800	799	797	794	789	784	777	769	761	753	744	735	723	715
15	.61	.62	.63	.63	.64	.64	.64	.64	.64	.64	.63	.63	.62	.62	.61	.61	.60	.59	.59	.58
	817	829	839	846	852	855	856	856	854	850	846	840	834	827	819	811	802	794	782	773
30	.65	.66	.67	.67	.68	.68	.69	.69	.68	.68	.68	.68	.67	.67	.66	.65	.64	.63	.63	.62
	873	885	894	901	906	909	910	909	907	904	900	894	883	882	874	867	859	850	840	835
45	.69	.70	.71	.71	.72	.72	.72	.72	.72	.72	.72	.71	.71	.71	.70	.69	.68	.67	.67	.66
	927	938	947	953	958	960	961	961	958	955	951	946	940	934	927	920	912	904	894	885
0900	.73	.74	.74	.75	.75	.76	.76	.76	.76	.76	.75	.75	.75	.74	.74	.73	.73	.72	.71	.70
	977	988	996	002	006	009	*010	*009	*007	*004	000	995	989	983	977	970	963	955	946	937
15	.76	.77	.78	.78	.79	.79	.79	.79	.79	.79	.79	.79	.78	.78	.77	.77	.76	.76	.75	.74
	*024	*034	*042	*048	*052	*054	*055	*054	*052	*049	*045	041	*036	*030	*024	*017	*011	003	994	983
30	.79	.80	.81	.82	.82	.82	.83	.83	.83	.82	.82	.82	.81	.81	.81	.80	.80	.79	.78	.77
	*068	*078	*085	*091	*094	*096	*097	*096	*094	*091	*088	083	*073	*073	*068	*061	*055	*048	*039	*031
45	.82	.83	.84	.85	.85	.85	.85	.85	.85	.85	.85	.85	.84	.84	.84	.83	.83	.82	.81	.81
	*108	*117	*124	*129	*133	*135	*135	*134	*133	*130	*126	123	*118	*113	*108	*103	*096	*089	*081	*073
1000	.85	.86	.87	.87	.88	.88	.88	.88	.88	.88	.88	.88	.87	.87	.86	.86	.85	.85	.84	.83
	*144	*153	*160	*164	*168	*169	*170	*169	*167	*165	*162	158	*154	*149	*144	*139	*133	*127	*119	*111
15	.87	.88	.89	.89	.90	.90	.90	.90	.90	.90	.90	.90	.90	.89	.89	.88	.88	.87	.87	.86
	*176	*185	*191	*196	*199	*200	*201	*200	*199	*196	*194	190	*186	*182	*177	*172	*167	*161	*153	*145
30	.90	.90	.91	.92	.92	.92	.92	.92	.92	.92	.92	.92	.92	.91	.91	.91	.90	.90	.89	.89
	*204	*212	*218	*223	*226	*227	*228	*227	*226	*224	*221	218	*215	*211	*207	*202	*197	*191	*183	*176
45	.91	.92	.93	.93	.94	.94	.94	.94	.94	.94	.94	.94	.94	.93	.93	.93	.92	.92	.91	.90
	*228	*236	*242	*246	*249	*250	*251	*251	*249	*248	*245	242	*239	*236	*232	*227	*222	*217	*209	*202

TABLE B-1 SOLAR PARAMETERS COS Z
XO (W/M*2.) ** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					JUL					AUG								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1400	.84	.85	.85	.86	.86	.87	.87	.88	.88	.88	.89	.89	.83	.89	.88	.88	.88	.87	.86	.87	.84	.83	.82	.80
	*128	*135	*142	*148	*153	*157	*162	*166	*168	*171	*172	*173	*173	*177	*170	*167	*163	*156	*147	*137	*125	*111	*094	*076
15	.81	.82	.82	.83	.84	.84	.85	.85	.86	.86	.85	.86	.86	.86	.86	.85	.84		.84	.83	.82	.80	.79	.77
	*090	*098	*104	*111	*116	*121	*126	*130	*133	*136	*138	*139	*139	*133	*127	*133	*129	*122	*112	*102	.83	.82	.80	.79
30	.78	.79	.79	.80	.81	.81	.82	.82	.83	.83	.83	.83	.83	.83	.83	.82	.82		.81	.80	.79	.77	.76	.74
	*048	*056	*063	*070	*076	*081	*087	*091	*095	*098	*100	*101	*102	*101	*099	*096	*091	*084	*073	*062	*049	*034	*016	.997
45	.75	.75	.76	.77	.77	.78	.79	.79	.79	.80	.80	.80	.80	.80	.80	.80	.79	.78	.78	.77	.75	.74	.72	.71
	*003	*011	*019	*026	*032	*038	*045	*049	*053	*056	*059	*060	*061	*060	*059	*054	*049	*042	*031	*020	*005	.990	.972	.951
1500	.71	.72	.73	.73	.74	.75	.75	.76	.76	.76	.77	.77	.77	.77	.77	.76	.76	.75	.74	.73	.72	.70	.69	.67
	.954	.963	.971	.978	.985	.992	.999	*004	*008	*012	*014	*016	*016	*016	*014	*010	*004	.997	.985	.973	.959	.942	.923	.902
15	.67	.68	.69	.69	.70	.71	.71	.72	.72	.73	.73	.73	.73	.73	.73	.72	.71		.70	.69	.68	.67	.65	.63
	.902	.911	.920	.928	.935	.942	.950	.955	.960	.964	.967	.968	.969	.968	.966	.962	.956	.948	.936	.924	.909	.891	.872	.850
30	.63	.64	.65	.65	.66	.67	.68	.68	.69	.69	.69	.69	.69	.69	.69	.68	.68		.66	.65	.64	.63	.61	.59
	.847	.857	.866	.874	.882	.890	.898	.904	.909	.913	.916	.918	.919	.918	.915	.911	.905	.897	.884	.871	.855	.837	.817	.794
45	.59	.60	.60	.61	.62	.63	.63	.64	.65	.65	.65	.65	.65	.65	.65	.64	.63		.62	.61	.60	.58	.57	.55
	.790	.800	.809	.818	.827	.835	.843	.850	.855	.859	.863	.865	.866	.865	.862	.858	.851	.843	.829	.815	.799	.780	.759	.736
1600	.54	.55	.56	.57	.58	.58	.59	.60	.60	.61	.61	.61	.61	.61	.61	.60	.59		.58	.57	.55	.54	.52	.50
	.729	.740	.750	.760	.769	.777	.786	.793	.799	.804	.807	.809	.810	.809	.806	.802	.795	.786	.772	.757	.740	.721	.699	.675
15	.50	.51	.51	.52	.53	.54	.55	.55	.56	.56	.57	.57	.57	.57	.57	.56	.55		.54	.52	.51	.49	.47	.45
	.667	.678	.689	.699	.709	.718	.727	.734	.741	.746	.749	.752	.752	.751	.748	.743	.736	.726	.712	.697	.679	.659	.636	.611
30	.45	.46	.47	.48	.49	.49	.50	.51	.51	.52	.52	.52	.52	.52	.52	.51	.50		.49	.48	.46	.44	.43	.41
	.603	.614	.626	.636	.647	.656	.666	.674	.680	.686	.690	.692	.693	.691	.688	.683	.675	.665	.650	.634	.610	.595	.572	.546
45	.40	.41	.42	.43	.44	.45	.45	.46	.47	.47	.47	.48	.48	.48	.47	.47	.46	.45	.44	.43	.41	.40	.38	.36
	.537	.549	.561	.572	.583	.593	.604	.612	.619	.624	.628	.630	.631	.630	.626	.621	.612	.602	.586	.569	.550	.529	.505	.479

MAY-AUG 34 N TABLE B-1 SOLAR PARAMETERS COS Z *** SIGNIFIES COS Z =1.
X0 (W/M**2.) ADD 1000 TO VALUES PRECEDED BY *

MST	DATE																							
	MAY					JUN					JUL					AUG								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30						
1700	.35	.36	.37	.38	.39	.40	.41	.41	.42	.42	.43	.43	.43	.43	.43	.43	.42	.41	.40	.39	.39	.39	.39	.39
	469	482	495	507	518	528	540	548	555	561	565	568	568	567	563	557	548	537		520	503	484	461	437
15	.30	.31	.32	.33	.34	.35	.36	.36	.37	.38	.38	.38	.38	.38	.38	.37	.36	.36		.34	.34	.34	.34	.34
	400	414	427	440	452	463	475	484	491	497	501	504	504	502	498	492	483	471		454	435	416	393	367
30	.25	.26	.27	.28	.29	.30	.31	.32	.32	.33	.33	.33	.33	.33	.33	.32	.31	.30		.29	.29	.29	.29	.29
	331	345	359	372	385	396	409	418	426	432	436	439	439	437	433	426	416	404		386	368	347	323	297
45	.19	.21	.22	.23	.24	.25	.26	.27	.27	.28	.28	.28	.28	.28	.28	.27	.26	.25		.24	.22	.21	.19	.17
	261	276	291	304	317	330	343	352	360	366	371	373	373	371	366	359	349	336		317	294	277	253	226
1800	.14	.15	.17	.18	.19	.20	.21	.22	.22	.23	.23	.23	.23	.23	.23	.22	.21	.20		.19	.17	.16	.14	.12
	191	207	222	236	250	262	276	286	294	300	305	307	307	305	300	292	281	268		249	229	207	182	155
15	.09	.10	.11	.13	.14	.15	.16	.17	.17	.18	.18	.18	.18	.18	.18	.17	.16	.15		.14	.12	.10	.08	.06
	121	137	153	168	182	195	209	219	228	234	239	241	241	238	233	225	214	200		180	159	137	111	083
30	.04	.05	.06	.08	.09	.10	.11	.12	.12	.13	.13	.13	.13	.13	.13	.12	.11	.10		.08	.07	.05	.03	.01
	051	068	084	100	115	129	143	153	162	169	173	175	175	172	166	158	146	132		111	090	067	041	012
45	.00	.00	.01	.03	.04	.05	.06	.07	.07	.08	.08	.08	.08	.08	.08	.07	.06	.05		.03	.02	.00	.00	.00
	000	000	017	033	048	062	077	088	097	103	108	110	109	106	100	091	079	064		042	021	000	000	000
1900	.00	.00	.00	.00	.00	.00	.01	.02	.02	.03	.03	.03	.03	.03	.03	.02	.01	.00		.00	.00	.00	.00	.00
	000	000	000	000	000	000	013	023	032	039	044	045	045	041	035	025	013	000		000	000	000	000	000
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000		000	000	000	000	000
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000		000	000	000	000	000
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000		000	000	000	000	000

TABLE B-1 SOLAR PARAMETERS COS Z
 MAY-AUG 34 N X0 (W/M*2.) *** SIGNIFIES CCS Z =1.
 ADD 1000 TO VALUES PRECEDED BY .

MST	SEP					OCT					DATE					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
0800	.49	.47	.46	.45	.44	.42	.41	.39	.38	.36	.34	.32	.30	.28	.26	.25	.23	.21	.20	.18	.17	.17	.16	.15	
	654	641	627	612	595	578	559	539	517	495	471	447	417	392	367	343	320	298	278	263	245	233	223	217	
15	.53	.52	.51	.50	.48	.47	.45	.44	.42	.40	.38	.36	.34	.32	.30	.29	.27	.25	.24	.23	.22	.21	.20	.20	
	716	703	688	673	657	639	620	599	578	555	531	506	476	451	426	402	378	357	337	319	301	292	283	278	
30	.57	.56	.55	.54	.53	.51	.49	.48	.46	.44	.42	.41	.39	.36	.34	.33	.31	.29	.28	.27	.25	.25	.24	.24	
	774	761	747	732	715	697	678	657	635	612	588	563	532	507	482	457	434	413	393	375	351	349	341	335	
45	.62	.60	.59	.58	.57	.55	.53	.52	.50	.48	.46	.44	.42	.40	.38	.36	.35	.33	.32	.30	.29	.29	.28	.28	
	830	817	803	787	770	752	733	712	689	666	641	616	585	560	534	510	487	465	446	423	414	403	395	390	
0900	.66	.64	.63	.62	.60	.59	.57	.56	.54	.52	.50	.48	.46	.44	.42	.40	.38	.37	.35	.34	.33	.32	.32	.31	
	883	870	855	840	822	804	784	763	740	716	691	666	635	609	584	559	536	515	496	479	465	454	446	442	
15	.69	.68	.67	.65	.64	.62	.61	.59	.57	.55	.53	.51	.49	.47	.45	.43	.41	.40	.38	.37	.36	.36	.35	.35	
	932	919	904	888	871	852	832	810	787	763	738	712	681	655	630	605	582	561	542	525	512	502	495	491	
30	.73	.71	.70	.69	.67	.66	.64	.62	.60	.58	.56	.54	.52	.50	.48	.46	.44	.43	.42	.40	.39	.39	.38	.38	
	978	964	950	933	916	896	876	854	830	806	780	754	723	697	672	647	624	603	585	563	555	546	539	537	
45	.76	.74	.73	.72	.70	.69	.67	.65	.63	.61	.59	.57	.55	.53	.51	.49	.47	.46	.44	.43	.42	.41	.41	.41	
	1020	1006	991	975	956	937	916	893	869	845	819	793	761	735	710	686	663	642	624	603	595	586	580	578	
1000	.78	.77	.76	.74	.73	.71	.69	.68	.66	.64	.62	.60	.57	.55	.53	.51	.50	.48	.47	.45	.45	.44	.44	.44	
	1058	1044	1029	1012	993	973	952	929	904	879	853	827	795	769	744	720	697	677	659	641	632	623	618	616	
15	.81	.80	.78	.77	.75	.74	.72	.70	.68	.66	.64	.62	.59	.57	.55	.53	.52	.50	.49	.45	.47	.46	.46	.46	
	1092	1077	1062	1044	1025	1005	983	960	935	910	883	857	825	799	774	750	727	707	690	675	664	655	651	650	
30	.83	.82	.80	.79	.77	.76	.74	.72	.70	.68	.66	.64	.61	.59	.57	.55	.54	.52	.51	.50	.49	.48	.48	.48	
	1121	1107	1091	1073	1053	1032	1010	986	961	936	909	882	850	824	799	775	753	734	716	702	691	684	680	680	
45	.85	.84	.82	.81	.79	.77	.75	.73	.71	.69	.67	.65	.63	.61	.59	.57	.55	.54	.52	.51	.51	.50	.50	.50	
	1146	1131	1115	1097	1077	1055	1033	1008	983	957	930	903	871	845	820	796	775	755	739	725	715	708	705	705	

SEP-DEC 34 N TABLE B-1 SOLAR PARAMETERS COS Z *** SIGNIFIES COS Z = 1.
X0 (W/M+2.) ADD 1000 TO VALUES PRECEDED BY .

NST	SEP					OCT					DATE					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1100	.87	.85	.84	.82	.80	.79	.77	.75	.73	.70	.68	.66	.64	.62	.60	.58	.56	.55	.54	.53	.52	.51	.51	.51	
	*187	*152	*135	*116	*096	*074	*050	*026	*000	973	947	919	887	861	836	813	792	773	757	741	734	728	725	727	
15	.88	.86	.85	.83	.81	.80	.78	.76	.73	.71	.69	.67	.65	.62	.61	.59	.57	.56	.55	.54	.53	.53	.52	.53	
	*183	*167	*150	*131	*110	*087	*063	*038	*012	985	958	931	897	873	848	825	804	786	770	753	749	743	741	743	
30	.89	.87	.86	.84	.82	.80	.78	.76	.74	.72	.70	.67	.65	.63	.61	.59	.58	.56	.55	.54	.54	.53	.53	.53	
	*195	*178	*160	*140	*119	*096	*072	*046	*020	992	965	938	905	880	855	833	812	794	779	767	759	754	753	756	
45	.89	.88	.86	.84	.82	.80	.78	.76	.74	.72	.70	.68	.65	.63	.61	.60	.58	.57	.56	.55	.54	.54	.54	.54	
	*201	*184	*166	*145	*123	*100	*075	*049	*022	995	967	940	907	882	858	835	815	798	783	772	764	760	760	763	
1200	.89	.88	.86	.84	.82	.80	.78	.76	.74	.72	.70	.67	.65	.63	.61	.59	.58	.57	.56	.55	.54	.54	.54	.54	
	*203	*186	*167	*146	*123	*099	*073	*047	*020	992	964	937	905	879	855	833	814	797	783	772	765	762	762	766	
15	.89	.88	.86	.84	.82	.80	.78	.76	.73	.71	.69	.67	.64	.62	.61	.59	.57	.56	.55	.54	.54	.54	.54	.54	
	*200	*182	*163	*141	*118	*093	*067	*040	*013	985	957	929	897	872	848	827	807	791	778	763	751	759	760	765	
30	.89	.87	.85	.83	.81	.79	.77	.75	.73	.70	.68	.66	.64	.62	.60	.58	.57	.55	.55	.54	.53	.53	.53	.54	
	*193	*174	*154	*132	*108	*082	*056	*029	*001	973	944	917	885	860	836	815	797	781	768	753	753	751	753	759	
45	.88	.86	.84	.82	.80	.78	.76	.74	.71	.69	.67	.65	.62	.60	.59	.57	.56	.54	.53	.53	.52	.52	.52	.53	
	*181	*161	*140	*117	*093	*067	*040	*012	984	956	927	900	868	843	820	799	781	766	754	745	740	739	741	748	
1300	.86	.85	.83	.81	.79	.77	.74	.72	.70	.68	.65	.63	.61	.59	.57	.56	.54	.53	.52	.52	.51	.51	.51	.52	
	*164	*144	*122	*098	*073	*047	*020	991	963	934	906	878	846	822	799	779	761	746	735	727	723	722	726	732	
15	.85	.83	.81	.79	.77	.75	.73	.70	.68	.66	.63	.61	.59	.57	.55	.54	.52	.51	.51	.50	.50	.50	.50	.50	
	*142	*122	*099	*075	*049	*022	994	966	937	908	879	852	820	796	774	754	737	723	712	705	701	701	705	713	
30	.83	.81	.79	.77	.75	.73	.70	.68	.66	.63	.61	.59	.57	.55	.53	.52	.50	.49	.49	.48	.48	.48	.48	.49	
	*116	*095	*072	*047	*021	*993	965	936	906	877	849	821	790	766	744	725	708	695	684	673	675	676	680	688	
45	.81	.79	.77	.75	.72	.70	.68	.66	.63	.61	.59	.57	.54	.52	.51	.49	.48	.47	.46	.45	.46	.46	.46	.47	
	*086	*064	*040	*015	988	959	930	901	872	842	814	786	755	731	710	691	675	662	653	647	645	646	651	660	

MST	SEP					OCT					DATE					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
400	.78	.76	.74	.72	.70	.67	.65	.63	.60	.58	.56	.54	.51	.50	.48	.47	.45	.44	.44	.43	.43	.43	.44	.44	
*051*023*004	978	950	922	892	862	833	803	775	747	716	693	672	653	638	626	617	612	610	612	612	612	618	627		
15	.75	.73	.71	.69	.67	.64	.62	.60	.57	.55	.53	.51	.48	.47	.45	.44	.43	.42	.41	.41	.40	.41	.41	.42	
*013	989	964	937	909	880	850	820	790	760	731	704	674	650	630	612	597	585	577	573	572	574	581	591		
30	.72	.70	.68	.66	.63	.61	.59	.56	.54	.52	.49	.47	.45	.43	.42	.40	.39	.38	.38	.38	.38	.38	.38	.39	
970	946	920	892	863	834	803	773	743	713	684	657	627	604	584	567	552	541	534	530	530	533	540	550		
45	.69	.67	.64	.62	.60	.57	.55	.53	.50	.48	.46	.44	.41	.40	.38	.37	.36	.35	.35	.34	.34	.35	.35	.36	
924	899	872	844	814	784	753	723	692	662	634	607	577	554	535	518	504	494	487	484	484	488	495	506		
1500	.65	.63	.61	.58	.56	.54	.51	.49	.46	.44	.42	.40	.38	.36	.34	.33	.32	.31	.31	.31	.31	.32	.32		
874	848	821	792	762	731	700	669	638	608	580	553	523	501	482	466	453	443	436	434	435	439	447	458		
15	.61	.59	.57	.54	.52	.49	.47	.45	.42	.40	.38	.36	.34	.32	.30	.29	.28	.28	.27	.27	.27	.27	.28	.29	
821	794	766	737	706	675	643	612	581	551	523	496	467	445	426	410	398	389	383	381	382	387	396	407		
30	.57	.55	.52	.50	.48	.45	.43	.40	.38	.36	.33	.31	.29	.28	.26	.25	.24	.24	.23	.23	.23	.24	.24	.25	
764	737	708	678	647	615	584	552	521	491	463	436	407	386	368	352	340	332	326	325	327	332	341	353		
45	.52	.50	.48	.45	.43	.41	.38	.36	.33	.31	.29	.27	.25	.23	.22	.21	.20	.19	.19	.19	.19	.20	.21		
705	677	648	617	585	553	521	489	458	428	400	374	345	324	306	291	280	272	267	265	269	275	284	296		
1600	.48	.46	.43	.41	.38	.36	.33	.31	.29	.26	.24	.22	.20	.19	.17	.16	.15	.15	.15	.15	.15	.16	.17		
643	615	585	553	521	489	456	424	393	363	335	309	281	260	243	228	217	210	206	205	208	215	224	237		
15	.43	.41	.38	.36	.33	.31	.28	.26	.24	.21	.19	.17	.15	.14	.13	.12	.11	.10	.10	.10	.11	.11	.12		
579	550	519	487	455	422	389	357	325	296	268	242	214	194	177	163	153	146	142	142	145	152	162	175		
30	.38	.36	.33	.31	.28	.26	.23	.21	.19	.16	.14	.12	.10	.09	.08	.07	.06	.06	.05	.05	.06	.07	.08		
513	483	452	419	386	353	320	287	256	226	198	173	146	126	109	096	086	080	077	077	081	088	098	111		
45	.33	.31	.28	.26	.23	.21	.18	.16	.13	.11	.09	.07	.05	.04	.03	.02	.01	.01	.01	.01	.02	.02	.03		
445	414	382	349	316	282	249	217	185	156	128	103	076	056	040	027	018	012	009	010	014	022	032	045		

SEP-DEC

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TABLE B-1 SOLAR PARAMETERS COS Z
X0 (W/M**2.)

*** SIGNIFICES COS Z =1.
ADD 1000 TO VALUES PRECEDED BY *

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY +

TABLE B-1 SOLAR PARAMETERS COS Z
XO (W/M**2.)

MST	DATE																		
	SEP					OCT					NOV					DEC			
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1700	.28	.25	.23	.21	.18	.15	.13	.11	.08	.06	.04	.02	.00	.00	.00	.00	.00	.00	.00
	375	344	312	278	244	211	177	145	113	084	056	031	005	000	000	000	000	000	000
15	.23	.20	.18	.15	.13	.10	.08	.05	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00
	304	273	240	206	172	138	104	071	040	011	000	000	000	000	000	000	000	000	000
30	.17	.15	.12	.10	.07	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	232	200	167	133	098	064	030	000	000	000	000	000	000	000	000	000	000	000	000
45	.12	.09	.07	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	160	128	094	059	025	000	000	000	000	000	000	000	000	000	000	000	000	000	000
1800	.07	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	088	055	020	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	015	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000

SEP-DEC 34 N TABLE B-1 SOLAR PARAMETERS COS Z *** SIGNIFIES COS Z =1.
 x0 (W/M**2.) ADD 1000 TO VALUES PRECEDED BY -

MST	JAN					FEB					DATE					MAR					APR				
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
0800	.17	.17	.17	.18	.18	.19	.20	.22	.23	.25	.27	.29	.32	.35	.37	.39	.42	.44	.47	.43	.51	.52	.54	.55	
	244	242	244	248	256	268	282	304	325	349	375	403	450	481	512	543	574	603	637	663	687	709	728	745	
	15	.22	.22	.22	.22	.23	.24	.25	.26	.28	.30	.32	.34	.37	.40	.42	.44	.46	.49	.51	.53	.55	.57	.58	.60
	306	305	307	312	320	332	348	370	391	416	442	470	517	548	579	610	640	669	701	727	750	771	790	806	
30	.26	.26	.26	.26	.27	.28	.29	.31	.32	.34	.36	.38	.42	.44	.46	.48	.51	.53	.56	.53	.60	.61	.63	.64	
	365	365	367	373	382	395	411	433	455	480	506	535	582	612	643	673	703	731	763	783	811	831	849	864	
	45	.30	.30	.30	.31	.31	.32	.33	.35	.37	.39	.41	.43	.46	.49	.51	.53	.55	.58	.60	.62	.64	.65	.67	.68
	422	422	425	431	441	454	471	494	517	541	568	596	643	674	704	734	763	791	822	845	868	888	905	920	
0900	.34	.34	.34	.34	.35	.36	.37	.39	.41	.43	.45	.47	.51	.53	.55	.57	.60	.62	.64	.65	.68	.69	.71	.72	
	475	476	479	486	497	511	528	552	575	600	627	655	702	733	762	792	820	848	878	901	923	942	958	972	
	15	.37	.37	.38	.38	.39	.40	.41	.43	.45	.47	.49	.51	.54	.57	.59	.61	.64	.66	.68	.70	.72	.73	.75	.76
	526	526	531	539	550	564	582	606	630	655	682	711	758	789	817	846	874	901	930	953	974	992	1008	1021	
30	.40	.41	.41	.42	.42	.44	.45	.47	.49	.50	.52	.55	.59	.60	.63	.65	.67	.69	.72	.73	.75	.77	.78	.79	
	572	574	579	587	599	614	632	658	681	707	734	763	810	839	869	897	924	950	979	1001	1021	1038	1053	1066	
	45	.43	.44	.44	.45	.46	.47	.48	.50	.52	.54	.56	.58	.62	.64	.66	.68	.71	.73	.75	.77	.78	.80	.81	.82
	615	617	623	632	645	660	679	705	729	755	782	811	857	887	916	944	970	996	1024	1045	1064	1081	1096	1108	
1000	.46	.46	.47	.48	.49	.50	.51	.53	.55	.57	.59	.61	.65	.67	.69	.71	.74	.76	.78	.80	.81	.83	.84	.85	
	654	657	663	673	686	703	722	748	773	799	826	855	901	930	959	986	1013	1037	1065	1085	1104	1120	1134	1145	
	15	.49	.49	.49	.50	.51	.53	.54	.56	.58	.60	.62	.64	.68	.70	.72	.74	.76	.78	.81	.82	.84	.85	.86	.87
	689	692	699	710	724	741	761	788	812	839	866	895	941	970	998	1025	1050	1075	1101	1121	1139	1154	1168	1179	
30	.51	.51	.52	.53	.54	.55	.56	.58	.60	.62	.64	.67	.70	.72	.75	.77	.79	.81	.83	.85	.86	.87	.89	.90	
	720	724	732	743	757	775	795	823	848	874	902	930	975	1005	1032	1059	1084	1107	1133	1152	1169	1184	1197	1208	
	45	.53	.53	.54	.55	.56	.57	.59	.61	.63	.65	.67	.69	.72	.75	.77	.79	.81	.83	.85	.88	.89	.90	.91	
	746	751	759	771	786	805	825	853	879	905	933	961	1007	1035	1062	1088	1113	1136	1161	1179	1195	1210	1222	1232	
JAN-APR	32	N	TABLE B-1					SOLAR PARAMETERS					COS Z X0 (W/M*+2.)					*** SIGNIFIES' COS Z =1. ADD 1000 TO VALUES PRECEDED BY *							

MST	JAN							FEB							MAR							APR						
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30			
1100	.54 .55 .55 .56 .57 .59 .60 768 773 783 795 811 830 851							.63 .64 .66 .69 .71 879 905 932 960 988						.74 .76 .79 .81 .83 .84 *033 .061 .088 .113 .137 .159						.87 .84 .80 .91 .92 .93 *184 .202 .217 .231 .243 .253								
15	.56 .56 .57 .58 .59 .60 .62 786 791 801 815 831 850 872							.64 .66 .68 .70 .72 901 927 954 981 .010						.76 .78 .80 .82 .84 .86 *054 .082 .108 .133 .156 .178						.88 .84 .81 .91 .92 .93 .94 *202 .211 .231 .248 .259 .268								
30	.56 .57 .58 .59 .60 .61 .63 799 805 815 829 846 866 888							.65 .67 .69 .71 .74 918 944 971 998 .027						.77 .79 .81 .83 .85 .87 *071 .098 .124 .148 .171 .192						.89 .90 .92 .93 .94 .95 *215 .232 .251 .259 .270 .279								
45	.57 .58 .58 .59 .61 .62 .64 807 814 825 839 857 877 900							.66 .68 .70 .72 .74 929 956 983 .011 .038						.78 .80 .82 .84 .86 .88 *082 .109 .134 .158 .181 .201						.89 .91 .92 .93 .94 .95 *223 .240 .253 .266 .277 .285								
1200	.57 .58 .59 .60 .61 .63 .64 810 817 830 845 863 884 906							.67 .69 .71 .73 .75 936 963 990 .019 .045						.78 .80 .82 .84 .86 .88 *080 .115 .140 .163 .185 .205						.90 .91 .92 .93 .94 .95 *227 .242 .255 .268 .278 .287								
15	.57 .58 .59 .60 .61 .63 .64 809 817 829 845 864 885 908							.67 .69 .71 .73 .75 938 965 992 .020 .047						.78 .80 .82 .84 .86 .88 *090 .116 .141 .164 .185 .204						.90 .91 .92 .93 .94 .95 *225 .240 .253 .265 .275 .283								
30	.57 .57 .58 .59 .61 .62 .64 803 811 825 841 860 882 905							.67 .69 .71 .73 .75 936 962 990 .017 .044						.78 .80 .82 .84 .86 .87 *087 .112 .136 .159 .180 .198						.89 .90 .92 .93 .94 .95 *219 .231 .247 .258 .267 .275								
45	.56 .57 .58 .59 .60 .62 .64 792 801 815 832 851 873 897							.66 .68 .70 .72 .74 928 955 982 .009 .036						.78 .80 .81 .83 .85 .87 *078 .103 .127 .149 .163 .188						.88 .90 .91 .92 .93 .94 *207 .222 .234 .245 .255 .263								
1300	.55 .56 .57 .58 .59 .61 .63 777 786 801 818 838 860 885							.65 .67 .69 .71 .73 915 942 969 997 .023						.77 .79 .80 .82 .84 .85 *065 .083 .113 .134 .154 .172						.87 .84 .80 .91 .92 .92 *191 .205 .218 .228 .237 .245								
15	.54 .54 .55 .57 .58 .60 .62 757 767 782 800 820 843 867							.64 .66 .68 .70 .72 898 925 952 979 .006						.75 .77 .79 .81 .82 .84 *047 .071 .093 .114 .134 .151						.86 .87 .88 .89 .90 .91 *170 .184 .195 .207 .216 .223								
30	.52 .53 .54 .55 .56 .58 .60 733 743 758 777 797 820 845							.62 .64 .66 .68 .70 876 903 930 956 983						.74 .75 .77 .79 .81 .82 *023 .047 .069 .090 .109 .126						.84 .85 .86 .87 .88 .89 *144 .158 .170 .180 .189 .197								
45	.50 .51 .52 .53 .55 .56 .58 704 714 730 749 770 793 818							.60 .62 .64 .66 .68 849 876 903 929 955						.72 .73 .75 .77 .78 .80 995 .019 .041 .061 .079 .096						.81 .83 .84 .85 .86 .86 *114 .127 .139 .149 .158 .166								

... SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY .

SOLAR PARAMETERS COS Z
X0 (W/M**2.)

TABLE B-1

JAN-APR 32 N

MST	JAN					FEB					MAR					APR									
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30						
1400	.47	.48	.49	.51	.52	.54	.56	.58	.60	.62	.64	.66	.68	.69	.71	.73	.74	.76	.77	.79	.80	.81	.82	.83	.84
	671	682	698	717	738	762	787	818	844	871	898	923	963	986	1017	1047	1074	1104	1123	1151	1179	1207	1234	1261	
15	.45	.46	.47	.48	.50	.51	.53	.56	.58	.60	.62	.64	.67	.68	.70	.72	.73	.75	.76	.77	.78	.79	.80	.81	
	633	645	662	681	703	726	751	782	809	835	861	887	926	948	969	989	1007	1023	1038	1053	1068	1083	1098	1113	
30	.42	.43	.44	.45	.47	.49	.50	.53	.55	.57	.59	.61	.64	.65	.67	.69	.70	.71	.73	.74	.75	.76	.77	.78	
	592	604	621	641	663	686	711	742	769	795	821	846	884	907	927	946	964	980	997	1010	1021	1032	1041	1049	
45	.39	.40	.41	.42	.44	.46	.47	.50	.52	.54	.55	.57	.60	.62	.64	.65	.67	.68	.69	.71	.72	.73	.74	.74	
	547	559	577	597	619	642	667	698	724	751	776	801	839	861	881	900	917	933	950	963	974	984	994	1002	
1500	.35	.36	.37	.39	.40	.42	.44	.46	.48	.50	.52	.54	.57	.58	.60	.62	.63	.64	.66	.67	.68	.69	.70	.71	
	498	511	529	549	571	595	619	650	676	702	728	752	789	811	831	850	867	882	899	912	923	934	943	952	
15	.32	.32	.34	.35	.37	.39	.40	.43	.44	.46	.48	.50	.53	.55	.56	.58	.59	.60	.62	.63	.64	.65	.66	.67	
	446	459	477	497	520	543	568	599	625	650	675	700	736	757	777	795	812	828	845	857	869	880	889	899	
30	.28	.29	.30	.31	.33	.35	.36	.39	.41	.42	.44	.46	.49	.50	.52	.53	.55	.56	.58	.59	.60	.61	.62	.62	
	391	404	422	443	465	489	513	544	569	595	619	643	679	700	720	738	755	770	787	800	811	822	832	842	
45	.24	.24	.26	.27	.29	.31	.32	.35	.36	.38	.40	.42	.45	.46	.48	.49	.50	.52	.53	.54	.55	.56	.57	.58	
	333	346	364	385	407	431	455	486	511	536	560	584	620	640	659	677	694	709	726	739	751	762	773	783	
1600	.19	.20	.22	.23	.25	.26	.28	.30	.32	.34	.36	.37	.40	.42	.43	.44	.46	.47	.48	.50	.51	.52	.53	.53	
	272	285	304	324	347	370	394	424	449	474	498	522	557	577	596	614	630	645	662	675	688	699	710	721	
15	.15	.16	.17	.19	.20	.22	.24	.26	.27	.29	.31	.33	.35	.37	.38	.40	.41	.42	.44	.45	.45	.47	.48	.49	
	209	222	241	261	283	307	331	360	385	410	433	456	491	511	530	547	564	579	596	609	622	634	645	656	
30	.10	.11	.12	.14	.15	.17	.19	.21	.23	.24	.26	.28	.30	.32	.33	.35	.36	.37	.39	.40	.41	.42	.43	.44	
	144	157	175	196	218	241	265	294	318	342	366	399	423	443	461	479	495	510	528	541	554	566	578	590	
45	.05	.06	.08	.09	.11	.12	.14	.16	.18	.20	.21	.23	.25	.27	.28	.30	.31	.32	.33	.35	.35	.37	.38	.39	
	076	090	108	128	150	173	197	226	250	273	296	319	352	372	391	408	424	440	457	471	484	497	510	522	

JAN-APR 32 N TABLE B-1 SOLAR PARAMETERS COS Z *** SIGNIFIES COS Z =1.
XO (W/M**2.) ADD 1000 TO VALUES PRECEDED BY .

MST	DATE																													
	JAN						FEB						MAR						APR											
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30											
1700	.01	.02	.03	.04	.06	.07	.09	.11	.13	.14	.16	.18	.20	.22	.23	.24	.26	.27	.28	.29	.30	.31	.33	.34	.365	.393	.413	.426	.439	.452
15	.00	.00	.00	.00	.01	.02	.04	.06	.08	.09	.11	.12	.15	.16	.18	.19	.20	.21	.23	.24	.25	.26	.27	.28	.312	.323	.341	.354	.368	.381
30	.00	.00	.00	.00	.00	.00	.00	.01	.02	.04	.06	.07	.09	.11	.12	.14	.15	.16	.17	.19	.20	.21	.22	.23	.238	.253	.267	.281	.296	.309
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.04	.05	.07	.08	.09	.11	.12	.13	.14	.15	.17	.18	.162	.173	.193	.208	.223	.237
1800	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.03	.04	.05	.06	.03	.09	.10	.11	.12	.087	.103	.119	.134	.149	.165
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.02	.03	.04	.06	.07	.011	.023	.044	.060	.076	.092
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.00	.02	.000	.003	.000	.000	.004	.020
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.00	.00	.000	.003	.000	.000	.000	.000

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

SOLAR PARAMETERS COS Z
X0 (W/M**2.)

TABLE B-1

32 N

JAN-APR

MST	MAY					JUN					JUL					AUG				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30		
0800	.56	.58	.58	.59	.59	.60	.60	.60	.60	.60	.59	.59	.53	.53	.57	.57	.56	.55	.54	.54
	759	771	781	788	793	796	797	796	794	790	785	779	773	766	756	750	742	733	723	714
15	.61	.62	.63	.63	.64	.64	.64	.64	.64	.64	.63	.63	.63	.62	.62	.61	.60	.60	.59	.59
	820	831	840	847	851	854	855	854	851	847	843	837	831	824	817	810	802	794	784	775
30	.65	.66	.67	.68	.68	.68	.68	.68	.68	.68	.68	.67	.67	.67	.66	.65	.65	.64	.63	.63
	878	888	897	903	907	909	910	909	906	903	898	893	887	881	874	867	859	852	842	833
45	.69	.70	.71	.72	.72	.72	.72	.72	.72	.72	.72	.71	.71	.71	.70	.70	.69	.68	.68	.67
	932	942	950	956	960	962	962	961	958	955	951	946	940	934	928	921	914	907	898	890
0900	.73	.74	.75	.75	.76	.76	.76	.76	.76	.76	.76	.75	.75	.75	.74	.73	.73	.72	.71	.71
	984	994	001	006	010	011	011	010	008	004	000	996	990	985	979	972	966	959	951	943
15	.77	.78	.78	.79	.79	.79	.79	.79	.79	.79	.79	.79	.78	.78	.78	.77	.77	.76	.75	.75
	032	041	048	053	056	058	058	056	054	051	047	043	038	032	027	021	015	008	000	993
30	.80	.81	.82	.82	.82	.83	.83	.83	.83	.83	.82	.82	.82	.81	.81	.80	.80	.79	.79	.79
	077	085	092	096	099	101	101	099	097	094	090	086	082	077	071	066	060	054	046	040
45	.83	.84	.85	.85	.85	.86	.86	.86	.86	.86	.85	.85	.85	.84	.84	.84	.83	.83	.82	.81
	118	126	132	136	139	140	140	139	136	134	130	125	122	117	113	107	102	096	089	082
1000	.86	.87	.87	.88	.88	.88	.88	.88	.88	.88	.88	.88	.88	.87	.87	.86	.86	.85	.85	.84
	155	162	168	172	175	176	175	174	172	170	166	163	159	155	150	145	140	135	128	121
15	.88	.89	.90	.90	.90	.91	.91	.91	.91	.91	.91	.90	.90	.90	.89	.89	.88	.88	.87	.87
	188	195	200	204	206	207	207	206	204	202	199	195	192	188	184	179	175	170	163	157
30	.90	.91	.92	.92	.93	.93	.93	.93	.93	.93	.93	.92	.92	.92	.92	.91	.91	.90	.90	.89
	216	223	228	232	234	235	235	234	232	230	227	224	221	217	214	210	205	200	194	187
45	.92	.93	.94	.94	.94	.95	.95	.95	.95	.95	.94	.94	.94	.94	.94	.93	.93	.92	.92	.91
	241	247	252	255	257	258	258	257	256	254	252	249	246	243	239	235	231	227	220	214

MAY-AUG 32 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M**2.) ** SIGNIFIES COS Z = 1. ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					JUL					AUG				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30		
1400	.85	.85	.86	.86	.87	.87	.88	.88	.88	.89	.89	.88	.87	.86	.85	.84	.83	.81		
	*138	*144	*150	*155	*159	*163	*167	*170	*173	*175	*177	*178	*178	*178	*177	*174	*170	*165		
15	.82	.82	.83	.84	.84	.85	.85	.85	.86	.86	.86	.85	.83	.86	.86	.86	.85	.85		
	*099	*106	*112	*117	*122	*126	*131	*134	*137	*140	*142	*143	*142	*143	*142	*139	*135	*130		
30	.79	.79	.80	.81	.81	.82	.82	.82	.83	.83	.83	.82	.84	.83	.83	.83	.83	.82		
	*057	*064	*070	*075	*081	*086	*091	*095	*098	*101	*103	*105	*105	*105	*104	*101	*097	*091		
45	.75	.76	.76	.77	.78	.78	.79	.79	.80	.80	.80	.80	.80	.80	.80	.80	.79	.79		
	*010	*017	*024	*030	*036	*041	*047	*051	*055	*058	*061	*063	*063	*063	*062	*059	*054	*048		
1500	.71	.72	.73	.73	.74	.75	.75	.76	.76	.76	.77	.77	.77	.77	.77	.76	.76	.75		
	.960	.968	.975	.982	.988	.994	*000	*005	*009	*013	*015	*017	*018	*018	*016	*013	*008	*002		
15	.67	.68	.69	.70	.70	.71	.72	.72	.72	.73	.73	.73	.73	.73	.73	.73	.72	.72		
	.907	.915	.923	.930	.937	.943	.950	.955	.960	.964	.967	.969	.970	.969	.968	.964	.959	.952		
30	.63	.64	.65	.66	.66	.67	.68	.68	.68	.69	.69	.68	.69	.69	.69	.69	.68	.68		
	.851	.860	.868	.875	.883	.889	.897	.903	.907	.912	.915	.917	.918	.918	.916	.912	.907	.899		
45	.59	.60	.60	.61	.62	.63	.63	.64	.64	.65	.65	.65	.65	.65	.65	.65	.64	.64		
	.792	.801	.810	.818	.826	.833	.841	.847	.853	.857	.860	.863	.864	.863	.861	.858	.852	.844		
1600	.54	.55	.56	.57	.57	.58	.59	.60	.60	.60	.61	.61	.61	.61	.61	.60	.60	.59		
	.731	.740	.749	.758	.766	.774	.783	.789	.795	.800	.804	.806	.807	.806	.804	.800	.794	.786		
15	.50	.50	.51	.52	.53	.54	.54	.55	.56	.56	.56	.56	.57	.56	.56	.56	.55	.55		
	.667	.677	.687	.696	.705	.713	.723	.730	.736	.741	.744	.747	.748	.747	.745	.740	.734	.725		
30	.45	.46	.46	.47	.48	.49	.50	.50	.51	.51	.52	.52	.52	.52	.52	.51	.51	.50		
	.601	.612	.622	.632	.642	.650	.660	.668	.674	.679	.683	.686	.687	.686	.683	.679	.672	.662		
45	.40	.41	.42	.42	.43	.44	.45	.46	.46	.47	.47	.47	.47	.47	.47	.46	.46	.45		
	.533	.545	.556	.566	.576	.586	.596	.604	.611	.616	.620	.623	.624	.623	.620	.615	.607	.598		

TABLE B-1 SOLAR PARAMETERS COS Z
 MAY-AUG 32 N
 *** SIGNIFIES COS Z = 1.
 ADD 1000 TO VALUES PRECEDED BY *

MST	DATE																							
	MAY					JUN					JUL					AUG								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30						
1700	.35	.36	.36	.37	.38	.39	.40	.41	.41	.42	.42	.42	.42	.42	.42	.42	.41	.40	.39	.38	.35	.34	.33	.31
	464	476	488	499	510	520	531	539	546	552	555	559	559	558	555	550	542	531	516	500	481	460	436	410
15	.29	.30	.31	.32	.33	.34	.35	.36	.36	.37	.37	.37	.37	.37	.37	.36	.36	.35	.34	.32	.31	.29	.27	.25
	394	407	419	431	442	453	464	473	480	486	490	493	494	493	489	483	475	464	447	431	411	389	365	338
30	.24	.25	.26	.27	.28	.29	.30	.31	.31	.32	.32	.32	.32	.32	.32	.31	.31	.30	.28	.27	.26	.24	.22	.20
	323	336	349	362	374	385	397	406	413	420	424	427	427	426	422	416	407	395	378	361	341	318	293	266
45	.19	.20	.21	.22	.23	.24	.25	.26	.26	.27	.27	.27	.27	.27	.27	.26	.26	.25	.23	.22	.20	.18	.16	.14
	251	266	279	292	305	316	329	338	346	352	357	360	360	358	354	347	338	326	308	290	269	246	220	193
1800	.13	.15	.16	.17	.18	.19	.20	.20	.21	.22	.22	.22	.22	.22	.22	.21	.20	.19	.18	.15	.15	.13	.11	.09
	180	194	209	222	236	248	261	270	279	285	290	292	292	290	286	279	269	256	238	219	198	174	147	119
15	.08	.09	.10	.11	.13	.13	.15	.15	.16	.16	.17	.17	.17	.17	.17	.16	.15	.14	.13	.11	.09	.08	.06	.03
	108	123	138	153	166	179	193	203	211	218	222	225	225	222	218	210	200	187	167	142	126	101	074	045
30	.03	.04	.05	.06	.07	.08	.09	.10	.11	.11	.12	.12	.12	.12	.12	.11	.10	.09	.07	.05	.04	.02	.00	.00
	037	053	068	083	098	111	125	135	144	150	155	157	157	155	149	141	131	117	097	077	054	029	002	000
45	.00	.00	.00	.01	.02	.03	.04	.05	.06	.06	.07	.07	.07	.07	.06	.06	.05	.04	.02	.01	.00	.00	.00	.00
	000	000	000	015	029	043	058	068	077	084	088	090	090	087	082	073	062	048	027	005	000	000	000	000
1900	.00	.00	.00	.00	.00	.00	.00	.00	.01	.01	.02	.02	.02	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	002	011	018	022	024	024	021	015	006	000	000	000	000	000	000	000	000
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000

TABLE B-1 SOLAR PARAMETERS COS Z ... SIGNIFIES COS Z =1.
 MAY-AUG 32 N XO (W/M-+2.) ADD 1000 TO VALUES PRECEDED BY .

MST	DATE												DEC											
	SEP				OCT				NOV															
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
0600	.07	.06	.05	.04	.03	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.13	.12	.11	.09	.08	.07	.06	.05	.03	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.18	.17	.16	.15	.14	.13	.11	.10	.09	.07	.06	.04	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.24	.23	.22	.20	.19	.18	.17	.16	.14	.13	.11	.10	.08	.06	.04	.03	.01	.00	.00	.00	.00	.00	.00	.00
0700	.29	.28	.27	.26	.25	.23	.22	.21	.19	.18	.16	.15	.13	.11	.09	.08	.06	.05	.03	.02	.01	.00	.00	.00
15	.34	.33	.32	.31	.30	.29	.27	.26	.25	.23	.21	.20	.18	.16	.14	.13	.11	.09	.08	.07	.05	.05	.04	.03
30	.39	.38	.37	.36	.35	.34	.32	.31	.30	.28	.26	.25	.23	.21	.19	.17	.16	.14	.13	.12	.10	.09	.09	.08
45	.44	.43	.42	.41	.40	.39	.37	.36	.34	.33	.31	.29	.27	.25	.24	.22	.20	.19	.17	.15	.15	.14	.13	.13
	.59	.58	.57	.55	.54	.52	.51	.49	.47	.45	.43	.40	.37	.35	.33	.30	.28	.26	.24	.22	.21	.19	.18	.18

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY -

TABLE B-1 SOLAR PARAMETERS COS Z
XO (W/M**2.)

SEP-DEC 32 N

MST	SEP					OCT					DATE					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
0800	.49	.48	.47	.46	.45	.43	.42	.41	.39	.37	.36	.24	.32	.30	.28	.26	.25	.23	.22	.21	.19	.19	.18	.17	
	662	650	638	624	610	594	576	558	538	516	494	471	442	418	394	371	348	327	307	290	274	262	252	246	
15	.54	.53	.52	.51	.49	.48	.47	.45	.44	.42	.40	.28	.35	.34	.32	.31	.29	.28	.26	.25	.24	.23	.22	.22	
	725	713	701	687	672	656	638	619	599	578	555	532	502	478	454	431	408	387	367	350	335	323	313	308	
30	.58	.57	.56	.55	.54	.52	.51	.49	.48	.46	.44	.42	.40	.38	.37	.35	.33	.32	.30	.29	.28	.27	.26	.26	
	785	773	761	747	732	716	698	678	658	636	613	589	560	536	511	488	465	444	424	407	383	361	372	367	
45	.63	.61	.60	.59	.58	.57	.55	.53	.52	.50	.48	.46	.44	.42	.40	.39	.37	.35	.34	.33	.32	.31	.30	.30	
	842	831	818	804	789	772	754	734	713	691	668	644	614	590	565	541	519	498	479	462	447	436	428	423	
0900	.67	.65	.64	.63	.62	.60	.59	.57	.56	.54	.52	.50	.48	.46	.44	.42	.41	.39	.38	.35	.35	.35	.34	.34	
	896	884	872	857	842	825	806	786	765	743	719	695	665	640	616	592	569	548	529	513	499	488	480	476	
15	.70	.69	.68	.67	.65	.64	.62	.61	.59	.57	.55	.53	.51	.49	.47	.46	.44	.42	.41	.40	.39	.38	.37	.37	
	947	935	922	907	891	874	855	835	813	790	767	742	712	687	663	639	616	596	577	561	547	537	530	526	
30	.74	.73	.71	.70	.69	.67	.66	.64	.62	.60	.58	.57	.54	.52	.50	.49	.47	.45	.44	.43	.42	.41	.41	.40	
	993	981	968	953	937	919	900	880	858	834	810	785	755	730	706	682	660	639	621	605	592	582	575	572	
45	.77	.76	.75	.73	.72	.70	.69	.67	.65	.63	.61	.59	.57	.55	.53	.51	.50	.48	.47	.45	.45	.44	.44	.43	
	1036	1024	1010	995	979	961	941	920	898	874	850	825	794	769	745	721	699	679	661	645	633	623	617	615	
1000	.80	.79	.77	.76	.75	.73	.71	.70	.68	.66	.64	.62	.60	.58	.56	.54	.52	.51	.49	.48	.47	.47	.46	.46	
	1075	1063	1049	1033	1016	998	978	956	933	910	885	860	829	804	779	756	734	714	696	681	669	661	656	654	
15	.82	.81	.80	.79	.77	.75	.74	.72	.70	.68	.66	.64	.62	.60	.58	.56	.54	.53	.52	.51	.50	.49	.49	.49	
	1110	1097	1083	1067	1049	1030	1010	988	965	941	916	890	859	834	810	787	765	745	728	714	702	694	689	688	
30	.85	.83	.82	.81	.79	.77	.76	.74	.72	.70	.68	.66	.64	.62	.60	.58	.56	.55	.54	.53	.52	.51	.51	.51	
	1140	1127	1112	1096	1078	1059	1038	1015	992	967	942	916	885	860	836	813	791	772	755	741	731	723	719	719	
45	.86	.85	.84	.82	.81	.79	.77	.76	.74	.72	.70	.67	.65	.63	.61	.60	.58	.56	.55	.54	.53	.53	.53	.53	
	1166	1152	1137	1120	1102	1082	1061	1038	1014	989	963	938	907	881	857	834	813	795	778	765	755	748	745	745	

SEP-DEC 32 N TABLE B-1 SOLAR PARAMETERS COS Z ** SIGNIFIES COS Z = 1.
 XC (W/M**2.) ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					DATE					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1100	.88	.87	.85	.84	.82	.81	.79	.77	.75	.73	.71	.69	.66	.64	.62	.61	.59	.58	.57	.53	.55	.54	.54	.54	
	.187	.173	.157	.140	.121	.101	.079	.056	.031	.006	.980	.954	.923	.893	.874	.851	.831	.812	.797	.784	.774	.768	.766	.767	
15	.89	.88	.87	.85	.83	.82	.80	.78	.76	.74	.72	.70	.67	.65	.63	.62	.60	.59	.58	.57	.55	.55	.55	.55	
	.203	.189	.173	.155	.136	.115	.092	.068	.044	.018	.992	.966	.935	.910	.886	.864	.843	.825	.810	.795	.789	.784	.782	.784	
30	.90	.89	.87	.86	.84	.82	.80	.78	.76	.74	.72	.70	.68	.66	.64	.62	.61	.59	.58	.57	.57	.56	.56	.56	
	.215	.200	.183	.165	.145	.124	.101	.076	.051	.025	.993	.973	.942	.917	.893	.871	.851	.834	.819	.803	.800	.795	.794	.796	
45	.91	.89	.88	.86	.84	.83	.81	.79	.76	.74	.72	.70	.68	.66	.64	.62	.61	.60	.58	.53	.57	.57	.57	.57	
	.222	.206	.189	.170	.150	.127	.104	.079	.054	.028	.001	.975	.944	.919	.896	.874	.855	.838	.824	.813	.805	.801	.801	.804	
1200	.91	.89	.88	.86	.84	.82	.80	.78	.76	.74	.72	.70	.68	.66	.64	.62	.61	.59	.58	.53	.57	.57	.57	.57	
	.224	.208	.190	.170	.149	.127	.103	.077	.051	.025	.998	.972	.941	.916	.893	.872	.853	.837	.823	.813	.806	.803	.803	.807	
15	.91	.89	.88	.86	.84	.82	.80	.78	.76	.74	.71	.69	.67	.65	.63	.62	.60	.59	.58	.57	.57	.57	.57	.57	
	.221	.204	.186	.166	.144	.121	.096	.070	.044	.017	.991	.964	.933	.909	.886	.865	.847	.831	.818	.803	.802	.800	.801	.806	
30	.90	.89	.87	.85	.83	.81	.79	.77	.75	.73	.71	.68	.66	.64	.62	.61	.59	.58	.57	.57	.55	.56	.56	.57	
	.213	.196	.177	.156	.134	.110	.085	.059	.032	.005	.978	.951	.921	.897	.874	.854	.836	.820	.808	.793	.794	.792	.794	.799	
45	.89	.88	.86	.84	.82	.80	.78	.76	.74	.71	.69	.67	.65	.63	.61	.60	.58	.57	.56	.55	.55	.55	.55	.56	
	.201	.183	.163	.142	.118	.094	.068	.042	.015	.988	.961	.934	.903	.879	.857	.837	.820	.805	.794	.783	.781	.780	.782	.788	
1300	.88	.86	.84	.83	.81	.79	.76	.74	.72	.70	.68	.66	.63	.61	.60	.58	.57	.56	.55	.51	.54	.54	.54	.55	
	.183	.165	.144	.122	.098	.073	.047	.020	.993	.966	.938	.912	.881	.858	.836	.816	.799	.785	.774	.767	.763	.763	.766	.773	
15	.86	.85	.83	.81	.79	.77	.75	.72	.70	.68	.65	.64	.61	.60	.58	.56	.55	.54	.53	.53	.52	.52	.53	.53	
	.161	.142	.121	.098	.074	.048	.022	.994	.966	.939	.911	.885	.855	.831	.810	.791	.774	.761	.751	.741	.741	.741	.745	.752	
30	.84	.83	.81	.79	.77	.75	.72	.70	.68	.66	.64	.61	.59	.57	.56	.54	.53	.52	.51	.51	.51	.51	.51	.51	
	.135	.115	.093	.069	.044	.018	.991	.963	.935	.907	.880	.854	.824	.800	.779	.761	.745	.732	.723	.715	.714	.715	.720	.728	
45	.82	.80	.78	.76	.74	.72	.70	.68	.65	.63	.61	.59	.57	.55	.53	.52	.51	.50	.49	.43	.48	.48	.49	.49	
	.104	.083	.061	.036	.011	.984	.956	.928	.900	.872	.844	.818	.783	.765	.745	.727	.711	.699	.690	.693	.692	.685	.690	.699	

SEP-DEC 32 N TABLE B-1 SOLAR PARAMETERS COS Z
 ... SIGNIFIES COS Z = 1.
 DEC 1900 TO VALUES PRECEDED BY .

MST	SEP					OCT					DATE					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1400	.79	.77	.76	.74	.71	.69	.67	.65	.62	.60	.58	.56	.54	.52	.50	.49	.48	.47	.46	.45	.46	.46	.46	.47	
	.068	.047	.024	.999	.973	.945	.917	.888	.860	.832	.804	.778	.743	.720	.706	.688	.673	.662	.654	.640	.646	.650	.656	.665	
15	.76	.75	.73	.70	.68	.66	.64	.61	.59	.57	.55	.53	.51	.49	.47	.46	.45	.44	.44	.43	.43	.43	.44	.44	
	.029	.007	.983	.957	.930	.902	.874	.845	.816	.788	.760	.734	.705	.682	.663	.646	.632	.621	.613	.603	.608	.611	.618	.628	
30	.73	.71	.69	.67	.65	.63	.60	.58	.56	.54	.51	.49	.47	.45	.44	.43	.42	.41	.40	.40	.40	.40	.41	.41	
	.985	.962	.938	.911	.884	.855	.826	.797	.768	.739	.712	.686	.657	.635	.616	.599	.586	.575	.569	.565	.565	.569	.576	.586	
45	.70	.68	.66	.63	.61	.59	.57	.54	.52	.50	.48	.46	.43	.42	.40	.39	.38	.37	.37	.37	.37	.37	.38	.38	
	.938	.914	.889	.862	.834	.805	.775	.746	.716	.688	.660	.634	.606	.584	.565	.549	.536	.527	.520	.518	.513	.523	.530	.541	
1500	.66	.64	.62	.60	.57	.55	.53	.50	.48	.46	.44	.42	.40	.38	.37	.35	.34	.34	.33	.33	.33	.33	.34	.35	
	.887	.862	.836	.809	.780	.750	.720	.691	.661	.632	.605	.579	.551	.530	.512	.496	.484	.475	.469	.467	.458	.473	.481	.492	
15	.62	.60	.58	.55	.53	.51	.48	.46	.44	.42	.39	.38	.35	.34	.32	.31	.30	.30	.29	.23	.29	.30	.30	.31	
	.832	.807	.780	.752	.723	.693	.662	.632	.603	.574	.547	.521	.493	.472	.454	.440	.428	.419	.414	.413	.414	.420	.428	.440	
30	.57	.55	.53	.51	.49	.46	.44	.42	.39	.37	.35	.33	.31	.30	.28	.27	.26	.26	.25	.25	.25	.26	.26	.27	
	.775	.749	.721	.692	.662	.632	.601	.571	.541	.512	.485	.460	.432	.412	.394	.380	.369	.361	.356	.355	.358	.364	.373	.385	
45	.53	.51	.49	.46	.44	.42	.39	.37	.35	.32	.30	.29	.26	.25	.24	.23	.22	.21	.21	.21	.21	.22	.22	.23	
	.714	.687	.659	.630	.599	.568	.537	.507	.477	.448	.421	.396	.363	.343	.332	.318	.307	.300	.296	.295	.298	.305	.314	.327	
1600	.48	.46	.44	.42	.39	.37	.34	.32	.30	.28	.26	.24	.22	.20	.19	.18	.17	.17	.17	.17	.17	.17	.18	.19	
	.651	.623	.595	.564	.534	.502	.471	.440	.410	.381	.354	.329	.303	.283	.267	.253	.243	.236	.233	.233	.236	.243	.253	.266	
15	.43	.41	.39	.37	.34	.32	.29	.27	.25	.23	.21	.19	.17	.15	.14	.13	.13	.12	.12	.12	.12	.13	.13	.14	
	.585	.557	.528	.497	.466	.434	.402	.371	.341	.312	.286	.261	.234	.215	.199	.187	.177	.171	.168	.169	.172	.179	.189	.202	
30	.38	.36	.34	.31	.29	.27	.24	.22	.20	.18	.16	.14	.12	.10	.09	.08	.08	.07	.07	.07	.08	.08	.09	.10	
	.517	.489	.458	.427	.396	.363	.332	.300	.270	.242	.215	.190	.164	.146	.130	.118	.109	.103	.101	.102	.106	.113	.124	.137	
45	.33	.31	.29	.26	.24	.21	.19	.17	.14	.12	.10	.09	.07	.05	.04	.03	.03	.02	.02	.02	.03	.03	.04	.05	
	.448	.418	.388	.356	.324	.291	.259	.228	.198	.169	.143	.119	.093	.075	.060	.048	.039	.034	.032	.033	.038	.046	.056	.070	

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

TABLE B-1 SOLAR PARAMETERS COS Z
XO (W/M**2.)

SEP-DEC 32 N

MST	SEP					OCT					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30		
1700	.28	.26	.23	.21	.18	.16	.14	.11	.09	.07	.05	.03	.01	.00	.00	.00	.00	.00	.00	
	376	347	315	283	251	218	186	154	124	096	069	045	020	002	000	000	000	000	001	
15	.23	.20	.18	.15	.13	.11	.08	.06	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	304	274	242	209	176	143	111	079	049	021	000	000	000	000	000	000	000	000	000	
30	.17	.15	.12	.10	.07	.05	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	231	200	167	135	101	068	036	004	000	000	000	000	000	000	000	000	000	000	000	
45	.12	.09	.07	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	157	125	093	059	026	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
1800	.06	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	083	051	017	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
15	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	008	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	

... SIGNIFIES COS Z =1.
ADD 1000 TO VALUES PRECEDED BY .

SOLAR PARAMETERS
XO (W/M**2.)

TABLE 8-1

SEP-DEC 32 N

MST	DATE										SOLAR PARAMETERS										COS Z XO (W/M+2.)	COS Z XO (W/M+2.)	TABLE B-1	JAN-APR	30 N	*** SIGNIFIES COS Z = 1. ADD 1000 TO VALUES PRECEDED BY *																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
	JAN					FEB					MAR					APR																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											

*** SIGNIFIES COS 2 = 1.
ADD 1000 TO VALUES PRECEDED BY *

SOLAR PARAMETERS
COS Z
XO (W/M*2.)

TABLE B-1

JAN-APR 30 N

MST	JAN					FEB					MAR					APR								
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30					
1100	.57	.57	.58	.59	.60	.61	.63	.65	.67	.69	.71	.73	.76	.78	.80	.82	.84	.86	.88	.89	.91	.92	.93	.94
808	812	821	833	848	866	887		914	939	965	991	018	*061	*083	*113	*137	*160	*181	*203	*223	*234	*246	*257	*265
15	.58	.59	.59	.60	.62	.63	.64	.67	.68	.70	.72	.75	*083	*091	*124	*158	*180	*200	*222	*237	*251	*263	*273	*281
825	831	840	853	869	887	908		936	961	987	014	040	*079	*081	*126	*150	*173	*194	*214	*235	*250	*264	*275	*285
30	.59	.60	.60	.61	.63	.64	.66	.68	.70	.72	.74	.76	*093	*097	*131	*155	*178	*200	*221	*236	*251	*265	*276	*286
839	844	855	868	885	904	925		953	978	004	031	058	*090	*100	*126	*150	*173	*194	*214	*235	*250	*264	*275	*285
45	.60	.60	.61	.62	.63	.65	.66	.69	.71	.73	.75	.77	*093	*103	*129	*153	*176	*198	*219	*239	*254	*268	*279	*289
847	853	864	878	895	915	937		965	990	017	043	070	*092	*102	*128	*152	*175	*197	*218	*238	*253	*267	*278	*288
1200	.60	.61	.61	.63	.64	.65	.67	.69	.71	.73	.75	.77	*092	*102	*128	*152	*175	*197	*218	*238	*253	*267	*278	*288
850	857	869	884	901	921	944		972	998	024	051	077	*091	*101	*127	*151	*174	*196	*217	*237	*252	*266	*277	*287
15	.60	.61	.61	.63	.64	.65	.67	.69	.71	.73	.75	.77	*091	*101	*127	*151	*174	*196	*217	*237	*252	*266	*277	*287
849	857	869	884	902	923	945		975	000	026	053	079	*090	*100	*126	*150	*173	*194	*214	*235	*250	*264	*275	*285
30	.60	.60	.61	.62	.64	.65	.67	.69	.71	.73	.75	.77	*091	*101	*127	*151	*174	*196	*217	*237	*252	*266	*277	*287
843	851	864	880	898	919	942		972	997	024	050	076	*090	*100	*126	*150	*173	*194	*214	*235	*250	*264	*275	*285
45	.59	.59	.60	.62	.63	.65	.66	.68	.70	.72	.74	.76	*091	*101	*127	*151	*174	*196	*217	*237	*252	*266	*277	*287
832	841	854	871	890	911	934		964	989	016	042	068	*090	*100	*126	*150	*173	*194	*214	*235	*250	*264	*275	*285
1300	.58	.58	.59	.61	.62	.64	.65	.68	.70	.72	.74	.76	*091	*101	*127	*151	*174	*196	*217	*237	*252	*266	*277	*287
816	825	840	857	876	898	921		951	977	003	029	055	*090	*100	*126	*150	*173	*194	*214	*235	*250	*264	*275	*285
15	.56	.57	.58	.59	.61	.62	.64	.66	.68	.70	.72	.74	*091	*101	*127	*151	*174	*196	*217	*237	*252	*266	*277	*287
796	805	820	838	858	880	903		933	959	985	011	036	*090	*100	*126	*150	*173	*194	*214	*235	*250	*264	*275	*285
30	.55	.55	.56	.58	.59	.61	.62	.65	.67	.69	.71	.73	*091	*101	*127	*151	*174	*196	*217	*237	*252	*266	*277	*287
771	781	796	814	834	857	881		911	936	962	983	013	*090	*100	*126	*150	*173	*194	*214	*235	*250	*264	*275	*285
45	.52	.53	.54	.56	.57	.59	.61	.63	.65	.67	.69	.71	*091	*101	*127	*151	*174	*196	*217	*237	*252	*266	*277	*287
741	752	768	786	807	829	853		883	909	935	960	985	*091	*101	*127	*151	*174	*196	*217	*237	*252	*266	*277	*287

... SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY -

SOLAR PARAMETERS COS Z
XO (W/M*2.)

TABLE B-1

JAN-APR 30 N

MST	JAN					FEB					DATE					MAR					APR				
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30						
1400	.50 .51 .52 .53 .55 .56 .58							.61 .62 .64 .66 .68			.71 .73 .75 .76 .77 .79			.80 .81 .82 .83 .84 .85											
	708 719 735 753 774 797 821							851 877 903 928 952			990 011 031 049 066 081			-097 103 118 127 135 141											
15	.47 .48 .49 .51 .52 .54 .56							.58 .60 .62 .64 .66			.63 .70 .72 .73 .75 .76			.77 .78 .79 .80 .81 .82											
	670 681 697 717 738 761 785							815 840 866 891 915			952 973 992 010 027 041			-057 063 078 087 095 101											
30	.44 .45 .46 .48 .49 .51 .53							.55 .57 .59 .61 .63			.65 .67 .69 .70 .71 .73			.74 .75 .76 .77 .78 .78											
	627 639 656 675 697 720 744							774 799 825 850 873			909 930 949 967 983 997			-013 024 034 043 050 057											
45	.41 .42 .43 .45 .46 .48 .50							.52 .54 .56 .57 .59			.62 .64 .65 .67 .68 .69			.71 .72 .72 .73 .74 .75											
	581 593 611 630 652 675 699							729 754 779 804 828			863 883 902 920 935 949			964 975 985 995 003 010											
1500	.38 .38 .40 .41 .43 .44 .46							.48 .50 .52 .54 .56			.58 .60 .62 .63 .64 .65			.67 .68 .69 .70 .71 .71											
	532 544 562 581 603 626 650							680 705 730 754 778			813 833 851 868 883 897			912 924 934 943 951 959											
15	.34 .35 .36 .37 .39 .41 .42							.45 .46 .48 .50 .52			.55 .56 .58 .59 .60 .61			.63 .64 .65 .65 .66 .67											
	479 491 509 529 551 574 598							628 652 677 701 724			753 778 796 813 828 842			857 863 878 887 896 904											
30	.30 .31 .32 .33 .35 .37 .38							.41 .42 .44 .46 .48			.50 .52 .53 .55 .56 .57			.58 .59 .60 .61 .62 .63											
	422 435 453 473 495 518 542							571 596 620 644 666			700 720 738 754 769 783			798 809 819 829 838 846											
45	.26 .27 .28 .29 .31 .33 .34							.36 .38 .40 .42 .43			.46 .47 .49 .50 .51 .53			.54 .55 .55 .57 .57 .58											
	363 376 394 414 436 459 483							512 536 560 583 606			639 658 676 692 707 721			736 747 758 767 777 785											
1600	.21 .22 .24 .25 .27 .28 .30							.32 .34 .35 .37 .39			.41 .43 .44 .45 .47 .48			.49 .50 .51 .52 .53 .54											
	301 314 332 352 374 397 421							449 473 497 520 542			575 594 611 627 642 656			671 682 693 703 713 722											
15	.17 .18 .19 .20 .22 .24 .25							.27 .29 .31 .32 .34			.37 .38 .39 .41 .42 .43			.44 .45 .46 .47 .48 .49											
	236 249 268 288 310 332 356							384 408 431 454 475			508 526 543 559 574 588			603 615 626 636 646 656											
30	.12 .13 .14 .16 .17 .19 .20							.23 .24 .26 .28 .29			.32 .33 .34 .35 .37 .38			.39 .40 .41 .42 .43 .44											
	170 183 201 221 243 265 288							316 340 363 385 406			438 456 473 489 504 518			533 545 557 568 578 588											
45	.07 .08 .09 .11 .12 .14 .16							.18 .19 .21 .22 .24			.26 .28 .29 .30 .31 .33			.34 .35 .36 .37 .38 .38											
	101 114 132 152 174 196 219							247 270 292 314 335			366 384 401 417 432 446			461 474 485 497 508 519											

*** SIGNIFIES COS 2 =1.
ADD 1000 TO VALUES PRECEDED BY *

SOLAR PARAMETERS
XO (W/M**2.)

TABLE B-1

JAN-APR 30 N

MST	DATE																							
	JAN			FEB			MAR			APR														
	1	5	10	15	20	25	30	5	10	15	20	25	30											
1700	.02	.03	.04	.06	.07	.09	.10	.12	.14	.16	.17	.19	.21	.22	.24	.25	.26	.27	.28	.29	.30	.31	.32	.33
	.031	.044	.062	.082	.103	.125	.147	.175	.197	.219	.241	.262	.293	.310	.327	.343	.358	.372	.388	.401	.413	.425	.436	.448
15	.00	.00	.00	.01	.02	.04	.05	.07	.09	.10	.12	.13	.15	.17	.18	.19	.21	.22	.23	.24	.25	.26	.27	.28
	.000	.000	.000	.010	.031	.052	.074	.101	.123	.145	.166	.187	.217	.235	.252	.268	.283	.297	.313	.325	.339	.351	.363	.375
30	.00	.00	.00	.00	.00	.00	.00	.02	.03	.05	.07	.08	.10	.11	.13	.14	.15	.16	.17	.18	.19	.20	.21	.22
	.000	.000	.000	.000	.000	.000	.000	.027	.048	.070	.091	.111	.141	.158	.175	.191	.206	.220	.237	.250	.264	.277	.289	.302
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.02	.05	.06	.07	.08	.09	.10	.12	.13	.14	.15	.16	.17
	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.014	.033	.063	.081	.097	.113	.129	.143	.160	.174	.188	.201	.215	.228
1800	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.03	.04	.05	.06	.07	.08	.09	.10	.11
	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.002	.019	.035	.051	.066	.083	.093	.112	.126	.140	.154
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.03	.04	.05	.06
	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.006	.021	.033	.051	.066	.080
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.007
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

JAN-APR 30 N TABLE B-1 SOLAR PARAMETERS COS Z
 YD (W/M**2.) --- SIGNIFIES COS Z = 1.
 ADD 1000 TO VALUES PRECEDED BY .

MST	MAY					JUN					JUL					AUG				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30		
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
15	.00	.00	.01	.02	.03	.04	.04	.04	.04	.04	.03	.02	.02	.01	.00	.00	.00	.00	.00	
	000	002	018	031	041	049	054	056	055	052	047	042	032	022	010	000	000	000	000	
30	.04	.06	.07	.08	.08	.09	.09	.09	.09	.09	.08	.08	.07	.06	.05	.04	.03	.02	.01	
	056	074	089	102	111	118	123	124	123	120	115	108	100	090	079	067	054	041	024	
45	.10	.11	.12	.13	.14	.14	.15	.15	.15	.14	.14	.13	.13	.12	.11	.10	.09	.08	.07	
	129	146	161	173	182	188	192	193	192	189	184	177	168	159	148	136	124	112	096	
0600	.15	.16	.17	.18	.19	.19	.20	.20	.20	.19	.19	.19	.18	.17	.16	.16	.15	.14	.13	
	202	219	233	244	252	258	262	263	261	258	252	246	237	228	218	207	195	183	168	
15	.21	.22	.23	.24	.24	.25	.25	.25	.25	.25	.24	.24	.23	.23	.22	.21	.20	.19	.18	
	276	291	305	315	323	328	332	332	330	327	321	315	306	297	287	277	266	254	240	
30	.26	.27	.28	.29	.30	.30	.30	.30	.30	.30	.29	.29	.28	.28	.27	.26	.25	.25	.23	
	348	364	376	386	393	398	401	401	399	395	390	383	375	367	357	347	336	325	312	
45	.31	.32	.33	.34	.35	.35	.35	.35	.35	.35	.34	.34	.34	.33	.32	.31	.31	.30	.29	
	421	435	447	456	463	467	469	469	467	463	458	451	444	435	426	416	406	396	383	
0700	.37	.38	.39	.39	.40	.40	.40	.40	.40	.40	.39	.39	.38	.38	.37	.37	.36	.35	.34	
	492	505	517	525	531	535	537	537	534	530	525	519	511	503	494	485	476	466	454	
15	.42	.43	.44	.44	.45	.45	.45	.45	.45	.45	.44	.44	.44	.43	.42	.42	.41	.40	.39	
	562	575	585	593	599	602	604	603	600	596	591	585	578	570	562	553	544	534	523	
30	.47	.48	.49	.49	.50	.50	.50	.50	.50	.50	.49	.49	.48	.48	.47	.47	.46	.45	.44	
	630	642	652	659	664	668	669	668	665	661	656	650	643	636	628	619	611	602	591	
45	.52	.53	.54	.54	.55	.55	.55	.55	.55	.55	.54	.54	.53	.53	.52	.52	.51	.50	.49	
	696	708	717	724	728	731	732	731	728	724	719	713	707	699	692	684	676	668	658	

... SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY .

TABLE B-1 SOLAR PARAMETERS
COS Z
XO (M/A=-2.)

MAY-AUG 30 N

PREVIOUS PAGE
IS BLANK

MST	MAY							JUN							JUL							AUG						
	DATE							DATE							DATE							DATE						
	5	10	15	20	25	30		5	10	15	20	25	30		5	10	15	20	25	30		5	10	15	20	25	30	
0800	.57	.57	.58	.59	.59	.60		.60	.60	.60	.59	.59	.59		.59	.59	.57	.56	.56	.55		.54	.54	.53	.52	.51	.51	
	760	771	780	786	790	793		793	792	789	785	780	775		763	761	754	747	739	731		722	714	706	698	689	681	
15	.61	.62	.63	.63	.64	.64		.64	.64	.64	.64	.63	.63		.63	.62	.62	.61	.60	.60		.59	.59	.58	.57	.56	.55	
	822	832	840	846	850	852		852	850	848	844	839	834		828	821	814	807	800	793		784	777	769	761	753	745	
30	.66	.66	.67	.68	.68	.68		.68	.68	.68	.68	.67	.67		.67	.66	.66	.65	.65	.64		.63	.63	.62	.61	.61	.60	
	881	891	898	903	907	908		908	906	904	900	895	890		885	879	872	866	859	852		844	837	830	822	814	806	
45	.70	.71	.71	.72	.72	.72		.72	.72	.72	.72	.72	.71		.71	.71	.70	.70	.69	.68		.68	.67	.66	.66	.65	.64	
	937	946	953	958	961	962		962	960	957	953	949	944		939	933	927	921	915	909		901	894	887	880	872	864	
0900	.74	.74	.75	.76	.76	.76		.76	.76	.76	.76	.76	.75		.75	.74	.74	.73	.73	.72		.72	.71	.71	.70	.69	.68	
	990	998	004	009	012	013		012	010	008	004	000	995		990	985	979	974	968	962		955	943	942	935	927	919	
15	.77	.78	.79	.79	.79	.80		.80	.80	.80	.79	.79	.79		.78	.78	.78	.77	.77	.76		.76	.75	.74	.74	.73	.72	
	039	047	053	057	059	060		059	057	055	051	048	043		038	033	028	023	018	012		005	993	993	986	979	971	
30	.81	.81	.82	.82	.83	.83		.83	.83	.83	.83	.82	.82		.82	.81	.81	.81	.80	.80		.79	.79	.78	.77	.77	.76	
	085	092	097	101	103	104		103	101	099	095	092	088		083	079	074	069	064	059		052	047	041	034	027	018	
45	.84	.84	.85	.85	.86	.86		.86	.86	.86	.86	.86	.85		.85	.85	.84	.84	.83	.83		.82	.82	.81	.81	.80	.79	
	126	133	138	142	144	144		143	141	139	136	132	129		125	120	116	112	107	102		096	090	083	078	071	062	
1000	.87	.87	.88	.88	.88	.89		.89	.89	.89	.89	.88	.88		.88	.88	.87	.87	.86	.86		.85	.85	.84	.84	.83	.82	
	164	171	175	178	180	180		179	178	175	173	169	166		162	158	154	150	146	141		136	130	123	118	111	102	
15	.89	.90	.90	.91	.91	.91		.91	.91	.91	.91	.91	.91		.90	.90	.90	.89	.89	.89		.88	.88	.87	.86	.86	.85	
	198	204	208	211	212	213		212	210	208	205	203	199		196	192	189	185	181	177		171	163	160	154	146	138	
30	.91	.92	.92	.93	.93	.93		.93	.93	.93	.93	.93	.93		.93	.92	.92	.92	.91	.91		.90	.90	.89	.89	.88	.87	
	227	233	237	239	241	241		240	239	237	234	232	229		226	223	219	216	212	208		203	193	192	185	178	169	
45	.93	.94	.94	.95	.95	.95		.95	.95	.95	.95	.95	.95		.95	.94	.94	.94	.93	.93		.92	.92	.91	.91	.90	.89	
	252	257	261	263	265	265		264	263	261	259	257	254		251	248	245	242	239	235		230	225	219	212	205	196	

MAY-AUG 30 N TABLE B-1 SOLAR PARAMETERS COS Z *** SIGNIFIES COS Z = 1.
 XO (W/M**2.) ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					JUL					AUG				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30		
1100	.95 .95 .96 .96 .96 .96	*272*277*281*283*284*284					.97 .97 .97 .97 .97 .96	*284*283*281*279*277*275					.96 .96 .96 .96 .95 .95	*273*270*267*264*261*258				.94 .94 .93 .92 .92 .91	*253*243*242*235*227*218	
15	.96 .96 .97 .97 .97 .98	*288*292*296*298*299*300					.98 .98 .98 .98 .98 .98	*299*298*297*295*294*292					.97 .97 .97 .97 .96 .96	*290*287*285*282*279*276				.96 .95 .94 .94 .93 .92	*271*263*260*253*245*235	
30	.97 .97 .98 .98 .98 .98	*298*303*306*308*310*310					.99 .99 .99 .99 .99 .99	*310*309*308*307*305*304					.98 .98 .98 .98 .97 .97	*302*300*298*296*293*289				.97 .95 .95 .95 .94 .93	*284*273*273*266*258*248	
45	.97 .98 .98 .98 .99 .99	*304*309*312*314*316*316					.99 .99 .99 .99 .99 .99	*316*316*315*314*313*312					.99 .99 .99 .98 .98 .98	*310*309*307*304*302*298				.97 .97 .95 .95 .94 .93	*293*283*282*275*266*255	
1200	.97 .98 .98 .98 .99 .99	*306*310*313*315*317*318					.99 .99 .99 .99 .99 .99	*318*318*317*317*316*315					.99 .99 .99 .99 .98 .98	*314*312*311*309*306*303				.98 .97 .96 .96 .95 .94	*298*292*285*278*269*258	
15	.97 .97 .98 .98 .98 .99	*302*306*310*312*314*315					.99 .99 .99 .99 .99 .99	*315*315*315*315*314*314					.99 .99 .99 .99 .98 .98	*313*312*310*308*306*302				.98 .97 .96 .95 .95 .93	*297*292*285*277*267*256	
30	.96 .97 .97 .98 .98 .98	*294*298*301*304*306*307					.98 .99 .99 .99 .99 .99	*308*308*308*308*308*308					.99 .99 .99 .98 .98 .98	*307*306*305*303*301*297				.97 .97 .96 .95 .95 .94	*292*283*279*271*261*249	
45	.95 .96 .96 .97 .97 .97	*281*285*289*291*293*295					.98 .98 .98 .98 .98 .98	*296*297*297*298*298*298					.98 .98 .98 .98 .97 .97	*297*297*296*294*291*288				.96 .95 .95 .94 .93 .92	*282*275*269*260*249*237	
1300	.94 .94 .95 .95 .96 .96	*263*267*271*274*276*278					.96 .96 .97 .97 .97 .97	*280*281*282*282*283*283					.97 .97 .97 .97 .96 .96	*283*282*281*280*277*274				.95 .95 .94 .93 .92 .91	*268*261*254*244*233*220	
15	.92 .93 .93 .94 .94 .94	*241*245*249*252*255*257					.95 .95 .95 .95 .95 .95	*259*260*262*263*263*264					.96 .95 .95 .95 .95 .94	*263*263*261*259*255				.94 .93 .92 .91 .90 .89	*249*242*234*224*212*198	
30	.90 .91 .91 .92 .92 .92	*214*219*222*226*229*231					.93 .93 .93 .94 .94 .94	*234*236*237*239*240*241					.93 .93 .93 .93 .93 .93	*241*241*240*238*235*232				.92 .91 .91 .90 .88 .87	*225*219*213*199*186*172	
45	.88 .88 .89 .89 .90 .90	*183*187*192*195*199*201					.91 .91 .91 .91 .92 .92	*205*207*209*211*212*213					.92 .92 .92 .91 .91 .91	*214*213*213*211*208*204				.90 .89 .88 .87 .86 .85	*197*193*180*169*156*141	

TABLE B-1 SOLAR PARAMETERS COS Z XC (W/M**2.) *** SIGNIFIES COS Z = 1. ADD 1000 TO VALUES PRECEDED BY .

MST	MAY					JUN					JUL					AUG									
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30							
1400	.85	.86	.86	.87	.87	.88	.88	.88	.89	.89	.89	.88	.83	.89	.89	.89	.89	.88	.88	.87	.85	.85	.84	.82	
	*147	*152	*157	*161	*164	*168	*171	*174	*176	*178	*180	*182	*182	*182	*181	*180	*177	*172		-165	*157	*147	*135	*122	*106
15	.82	.83	.83	.84	.84	.85	.85	.86	.86	.86	.86	.87	.87	.87	.87	.86	.86	.86	.86	.85	.84	.83	.82	.81	.79
	*107	*113	*118	*122	*126	*130	*134	*137	*140	*142	*144	*145	*147	*147	*146	*144	*141	*136		-128	*123	*110	*097	*083	*066
30	.79	.80	.80	.81	.81	.82	.82	.83	.83	.83	.83	.84	.84	.84	.84	.83	.83	.83	.83	.82	.81	.80	.79	.78	.76
	*064	*070	*075	*080	*084	*088	*093	*097	*100	*103	*105	*107	*106	.108	*107	*105	*101	*096		-088	*073	*069	*055	*040	*023
45	.76	.76	.77	.77	.78	.78	.79	.79	.80	.80	.80	.80	.80	.80	.80	.80	.80	.79	.79	.78	.73	.77	.75	.74	.73
	*016	*023	*028	*034	*039	*043	*048	*052	*056	*059	*062	*064	*065	.065	*064	*062	*058	*053		-044	*034	*023	*009	993	975
1500	.72	.72	.73	.74	.74	.75	.75	.76	.76	.76	.77	.77	.77	.77	.77	.77	.76	.76	.76	.75	.74	.73	.72	.70	.69
	966	972	978	984	989	995	*000	*005	*009	*012	*015	*017	*019	.019	*018	*015	*011	*005		996	985	974	959	943	924
15	.68	.68	.69	.70	.70	.71	.71	.72	.72	.73	.73	.73	.73	.73	.73	.73	.72	.72	.72	.71	.70	.69	.68	.66	.65
	911	918	925	931	937	943	949	954	958	962	965	968	969	.969	968	965	961	955		945	934	921	906	889	869
30	.63	.64	.65	.66	.66	.67	.67	.68	.68	.69	.69	.69	.69	.69	.69	.69	.68	.68	.68	.67	.66	.65	.64	.62	.60
	854	861	868	875	882	888	895	900	905	909	913	915	916	.916	915	912	908	901		890	873	865	850	832	811
45	.59	.60	.60	.61	.62	.62	.63	.64	.64	.64	.65	.65	.65	.65	.65	.65	.64	.64	.64	.63	.62	.60	.59	.58	.56
	794	802	809	817	824	831	838	844	849	853	857	860	861	.861	859	856	851	844		833	821	807	790	771	750
1600	.54	.55	.56	.57	.57	.58	.59	.59	.60	.60	.60	.61	.61	.61	.61	.60	.60	.59	.59	.58	.57	.56	.54	.53	.51
	731	739	748	756	763	771	779	785	790	795	799	802	803	.803	801	798	792	785		773	760	745	728	708	687
15	.49	.50	.51	.52	.53	.53	.54	.55	.55	.55	.56	.56	.56	.56	.56	.56	.55	.54	.54	.53	.52	.51	.50	.48	.46
	666	675	684	692	700	708	717	724	730	735	738	741	743	.742	740	737	731	723		710	697	681	663	643	620
30	.45	.45	.46	.47	.48	.48	.49	.50	.50	.51	.51	.51	.51	.51	.51	.51	.50	.50	.50	.49	.47	.45	.45	.43	.41
	598	608	618	627	636	644	653	660	667	672	676	679	680	.680	678	674	667	659		645	632	615	596	575	552
45	.39	.40	.41	.42	.43	.43	.44	.45	.45	.46	.46	.46	.47	.47	.46	.46	.45	.45	.45	.44	.42	.41	.39	.38	.36
	529	540	550	560	569	578	588	596	602	608	612	615	616	.615	613	609	602	593		579	564	547	528	506	482

*** SIGNIFIES COS 2 =1.
ADD 1000 TO VALUES PRECEDED BY *

TABLE B-1 SOLAR PARAMETERS
X0 (W/M*2.)

COS 2

MAY-AUG

30 N

MST	DATE											
	MAY				JUN				JUL			
	5	10	15	20	25	30	5	10	15	20	25	30
1700	.34	.35	.36	.37	.38	.38	.39	.40	.40	.41	.41	.42
	459	470	481	491	501	511	521	529	536	542	546	549
15	.29	.30	.31	.32	.32	.33	.34	.35	.35	.36	.36	.36
	387	399	410	421	432	442	453	462	469	475	479	482
30	.23	.24	.25	.26	.27	.28	.29	.30	.30	.31	.31	.31
	315	327	339	351	362	373	385	393	401	407	411	414
45	.18	.19	.20	.21	.22	.23	.24	.24	.25	.26	.26	.26
	242	255	267	280	292	303	315	324	332	338	343	346
1800	.13	.14	.15	.16	.17	.18	.19	.19	.20	.20	.21	.21
	168	182	196	209	221	233	246	255	263	269	274	277
15	.07	.08	.09	.10	.11	.12	.13	.14	.15	.15	.16	.16
	095	110	124	137	150	163	176	186	194	200	205	208
30	.02	.03	.04	.05	.06	.07	.08	.09	.09	.10	.10	.11
	022	037	052	067	080	093	107	117	125	132	137	139
45	.00	.00	.00	.00	.01	.02	.03	.04	.04	.05	.05	.05
	000	000	000	000	011	024	038	048	057	064	068	071

TABLE B-1 SOLAR PARAMETERS COS Z
X0 (W/M**2.) *** SIGNIFIES COS Z =1.
ADC 1000 TO VALUES PRECEDED BY *

MST	DATE											
	MAY				JUN				JUL			
	5	10	15	20	25	30	5	10	15	20	25	30
1700	.38	.37	.35	.34	.32	.31	.42	.42	.41	.41	.40	.40
	510	495	477	457	435	410	550	549	547	542	535	525
15	.33	.32	.30	.29	.27	.25	.37	.36	.36	.35	.34	.34
	441	425	408	385	362	337	483	482	479	474	466	456
30	.28	.27	.25	.23	.22	.20	.31	.31	.31	.30	.29	.29
	370	353	334	313	289	263	415	414	411	405	397	386
45	.22	.21	.20	.18	.16	.14	.26	.26	.26	.25	.25	.24
	298	281	251	239	215	188	346	345	341	335	327	315
1800	.17	.15	.14	.12	.10	.08	.21	.21	.21	.20	.19	.18
	226	209	188	165	140	113	277	276	272	265	256	244
15	.12	.10	.09	.07	.05	.03	.16	.16	.15	.15	.14	.13
	154	135	115	091	065	037	208	206	202	195	185	173
30	.06	.05	.03	.01	.00	.00	.11	.10	.10	.09	.09	.08
	083	063	042	018	000	000	139	137	132	125	115	102
45	.01	.00	.00	.00	.00	.00	.05	.05	.05	.04	.03	.02
	011	003	000	000	000	000	071	068	063	055	045	031

MST	DATE																							
	SEP					OCT					NOV					DEC								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
0600	.07	.06	.05	.04	.03	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.12	.11	.11	.10	.09	.08	.06	.05	.04	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.18	.17	.16	.15	.14	.13	.12	.11	.10	.08	.07	.05	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.24	.23	.22	.21	.20	.19	.18	.16	.15	.14	.12	.11	.09	.07	.05	.04	.03	.01	.00	.00	.00	.00	.00	.00
0700	.29	.28	.27	.26	.25	.24	.23	.22	.20	.19	.17	.16	.14	.12	.11	.09	.08	.06	.05	.03	.02	.01	.01	.00
15	.34	.33	.33	.32	.31	.29	.28	.27	.26	.24	.23	.21	.19	.18	.16	.14	.13	.11	.10	.09	.07	.06	.06	.05
30	.40	.39	.38	.37	.36	.35	.33	.32	.31	.29	.28	.26	.24	.22	.21	.19	.18	.16	.15	.13	.12	.11	.11	.10
45	.45	.44	.43	.42	.41	.40	.38	.37	.36	.34	.33	.31	.29	.27	.26	.24	.22	.21	.19	.18	.17	.16	.15	.15

SEP-DEC 30 N TABLE B-1 SOLAR PARAMETERS COS Z ... SIGNIFIES COS Z = 1.
 ADD 1000 TO VALUES PRECEDED BY .

MST	SEP					OCT					NOV					DEC								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
0800	.50	.49	.48	.47	.46	.45	.43	.42	.40	.39	.37	.36	.34	.32	.30	.28	.27	.25	.24	.23	.21	.21	.20	.19
	669	659	648	636	623	608	593	576	557	537	516	494	467	443	421	398	376	355	336	313	293	290	281	274
15	.54	.54	.53	.52	.50	.49	.48	.47	.45	.43	.42	.40	.38	.36	.34	.33	.31	.30	.28	.27	.25	.25	.24	.24
	733	723	712	700	687	672	656	639	620	600	579	556	529	505	482	459	437	416	397	380	355	353	343	337
30	.59	.58	.57	.56	.55	.54	.52	.51	.49	.48	.46	.44	.42	.40	.39	.37	.35	.34	.32	.31	.30	.29	.29	.28
	795	785	774	761	748	733	717	699	680	659	633	615	587	564	540	517	495	474	455	433	424	412	403	397
45	.63	.62	.61	.60	.59	.58	.56	.55	.53	.52	.50	.48	.46	.44	.43	.41	.39	.38	.36	.35	.34	.33	.33	.32
	853	843	832	820	806	791	774	756	736	716	694	671	643	619	595	572	550	529	511	494	480	468	460	455
0900	.67	.66	.65	.64	.63	.62	.60	.59	.57	.56	.54	.52	.50	.48	.46	.44	.43	.41	.40	.39	.38	.37	.36	.36
	908	898	887	874	860	845	828	809	789	768	746	723	694	670	647	624	602	581	563	546	532	522	514	509
15	.71	.70	.69	.68	.67	.66	.64	.63	.61	.59	.57	.56	.53	.51	.50	.48	.46	.45	.43	.42	.41	.40	.40	.40
	960	949	938	925	911	895	878	859	839	817	794	771	742	718	695	672	650	629	611	595	582	571	564	560
30	.75	.74	.73	.72	.70	.69	.67	.66	.64	.62	.61	.59	.56	.55	.53	.51	.49	.48	.47	.45	.44	.44	.43	.43
	1007	997	985	972	958	941	924	904	884	862	839	815	786	762	739	716	694	674	656	640	627	617	611	607
45	.78	.77	.76	.75	.73	.72	.70	.69	.67	.65	.63	.62	.59	.57	.56	.54	.52	.51	.49	.48	.47	.47	.46	.46
	1051	1041	1029	1015	1000	984	965	946	925	903	879	855	826	802	778	755	734	714	696	681	669	660	654	651
1000	.81	.80	.79	.78	.76	.75	.73	.72	.70	.68	.66	.64	.62	.60	.58	.56	.55	.53	.52	.51	.50	.49	.49	.49
	1091	1080	1068	1054	1038	1021	1003	983	961	939	915	891	862	838	814	791	770	750	733	713	707	698	693	691
15	.84	.83	.81	.80	.79	.77	.76	.74	.72	.70	.68	.66	.64	.62	.60	.59	.57	.56	.54	.53	.52	.52	.51	.51
	1126	1115	1102	1088	1072	1055	1036	1015	993	970	947	922	893	869	845	822	801	782	765	751	740	732	727	726
30	.86	.85	.84	.82	.81	.79	.78	.76	.74	.72	.70	.68	.66	.64	.62	.61	.59	.58	.56	.55	.54	.54	.54	.54
	1157	1146	1132	1118	1101	1083	1064	1043	1021	997	973	949	919	895	872	849	828	810	793	780	769	762	758	757
45	.88	.87	.85	.84	.83	.81	.79	.78	.76	.74	.72	.70	.68	.66	.64	.62	.61	.59	.58	.57	.56	.56	.55	.55
	1183	1171	1158	1143	1126	1107	1087	1066	1043	1020	995	971	941	917	893	871	851	833	817	804	794	787	784	784

*** SIGNIFIES COS Z =1.
ADD 1000 TO VALUES PRECEDED BY *

TABLE B-1 SOLAR PARAMETERS COS Z
XO (W/M**2.)

SEP-DEC 30 N

MST	SEP							OCT							DATE							NOV							DEC						
	5	10	15	20	25	30		5	10	15	20	25	30		5	10	15	20	25	30		5	10	15	20	25	30		5	10	15	20	25	30	
1100	.89	.88	.87	.86	.84	.82		.81	.79	.77	.75	.73	.71		.61	.67	.65	.63	.62	.60		.59	.53	.58	.57	.57	.57		.59	.53	.58	.57	.57	.57	
	205	193*	179*	163*	145*	126		*106*	084*	061*	037*	013	988		958	934	911	889	869	851		835	823	811	808	805	806		835	823	811	808	805	806	
15	.91	.89	.88	.87	.85	.83		.82	.80	.78	.76	.74	.72		.70	.68	.66	.64	.63	.61		.60	.53	.59	.58	.58	.58		.60	.53	.59	.58	.58	.58	
	222	209*	194*	178*	160*	141		*120*	097*	074*	050*	025*	000		970	946	923	901	882	864		849	833	823	824	822	824		849	833	823	824	822	824	
30	.92	.90	.89	.87	.86	.84		.82	.80	.78	.76	.74	.72		.70	.68	.66	.65	.63	.62		.61	.60	.59	.59	.59	.59		.61	.60	.59	.59	.59	.59	
	234	220*	205*	188*	170*	150		*128*	105*	082*	057*	032*	007		977	953	930	909	890	873		859	847	839	835	834	836		859	847	839	835	834	836	
45	.92	.91	.89	.88	.86	.84		.83	.81	.79	.77	.75	.73		.70	.68	.67	.65	.64	.62		.61	.60	.60	.60	.59	.60		.61	.60	.60	.60	.59	.60	
	241	227*	211*	194*	174*	154		*132*	108*	084*	059*	034*	009		979	955	933	912	893	877		863	852	845	841	841	844		863	852	845	841	841	844	
1200	.92	.91	.89	.88	.86	.84		.82	.81	.78	.76	.74	.72		.70	.68	.66	.65	.63	.62		.61	.60	.60	.60	.60	.60		.61	.60	.60	.60	.60	.60	
	243	228*	212*	194*	174*	153		*130*	106*	082*	057*	031*	006		976	953	930	910	891	876		863	853	846	843	843	847		863	853	846	843	843	847	
15	.92	.91	.89	.88	.86	.84		.82	.80	.78	.76	.74	.72		.63	.68	.66	.64	.63	.62		.61	.60	.60	.59	.59	.60		.61	.60	.60	.59	.59	.60	
	240	225*	208*	189*	169*	147		*124*	099*	074*	049*	023	958		963	945	923	903	885	870		857	843	842	840	841	846		857	843	842	840	841	846	
30	.91	.90	.88	.87	.85	.83		.81	.79	.77	.75	.73	.71		.69	.67	.65	.64	.62	.61		.60	.53	.59	.59	.59	.59		.60	.53	.59	.59	.59	.59	
	232	216*	198*	179*	158*	136		*112*	087*	062*	036*	010	925		956	932	911	891	874	859		847	834	834	832	834	839		847	834	834	832	834	839	
45	.90	.89	.87	.86	.84	.82		.80	.78	.76	.74	.72	.70		.67	.66	.64	.62	.61	.60		.59	.53	.56	.58	.58	.59		.59	.53	.56	.58	.58	.59	
	219	203*	184*	164*	143*	120		*095*	070*	044*	018	993	967		934	915	894	874	858	843		832	825	820	819	822	828		832	825	820	819	822	828	
1300	.89	.88	.86	.84	.82	.80		.78	.76	.74	.72	.70	.68		.66	.61	.62	.61	.60	.59		.58	.57	.57	.57	.57	.57		.58	.57	.57	.57	.57	.57	
	202	184*	165*	145*	122*	099		*074*	048*	022	995	970	944		915	893	872	853	837	823		813	805	802	802	805	812		813	805	802	802	805	812	
15	.87	.86	.84	.82	.81	.79		.76	.74	.72	.70	.68	.66		.64	.62	.60	.59	.58	.57		.56	.55	.55	.55	.55	.56		.56	.55	.55	.55	.55	.56	
	179	161*	141*	120*	097*	073		*047*	021	995	969	942	917		883	868	845	827	811	798		789	782	773	780	784	791		789	782	773	780	784	791	
30	.85	.84	.82	.80	.78	.76		.74	.72	.70	.68	.66	.64		.61	.60	.58	.57	.56	.55		.54	.53	.53	.53	.54	.54		.54	.53	.53	.53	.54	.54	
	152	133*	113*	091*	067*	042		*016	990	963	937	910	885		856	834	814	796	781	769		760	751	752	753	758	766		760	751	752	753	758	766	
45	.83	.81	.80	.78	.76	.74		.72	.69	.67	.65	.63	.61		.53	.57	.56	.54	.53	.52		.52	.51	.51	.51	.51	.52		.52	.51	.51	.51	.51	.52	
	120	101*	080*	057*	033*	007		981	954	927	900	874	849		820	798	776	761	747	735		727	722	720	722	728	736		727	722	720	722	728	736	

SEP-DEC 30 N TABLE B-1 SOLAR PARAMETERS COS Z ... SIGNIFIES COS Z = 1.
X0 (W/7*+2.) ADD 1000 TO VALUES PRECEDED BY .

MST	SEP					OCT					DATE					NOV					DEC							
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30				
1400	.80	.79	.77	.75	.73	.71	.69	.66	.64	.62	.60	.58	.56	.54	.53	.51	.50	.50	.49	.49	.48	.49	.49	.50				
	.084+.064+.042+.019						968	941	913	886	859	833	808	779	753	739	722	708	697	689	685	684	687	693	702			
15	.77	.76	.74	.72	.70	.68	.65	.63	.61	.59	.57	.55	.53	.51	.50	.48	.47	.47	.46	.45	.45	.46	.46	.47				
	.044+.023+.000						924	896	869	841	814	788	763	735	714	695	679	665	655	648	644	644	647	654	664			
30	.74	.72	.70	.68	.66	.64	.62	.60	.57	.55	.53	.51	.49	.48	.46	.45	.44	.43	.43	.43	.43	.43	.43	.44				
	.999						978	954	929	903	876	848	820	792	765	739	714	685	665	647	631	619	609	603	603	603	604	611
45	.71	.69	.67	.65	.63	.60	.58	.56	.54	.52	.50	.48	.45	.44	.43	.41	.40	.40	.39	.39	.39	.39	.40	.41				
	.951						928	904	879	852	824	796	768	739	712	686	661	634	613	595	580	568	559	553	551	552	557	565
1500	.67	.65	.63	.61	.58	.56	.54	.52	.50	.47	.45	.44	.41	.40	.39	.38	.37	.36	.36	.35	.35	.36	.36	.37				
	.899						875	851	824	797	769	740	711	683	656	629	605	578	558	540	526	514	506	501	499	501	506	514
15	.63	.61	.59	.56	.54	.52	.50	.47	.45	.43	.41	.39	.37	.36	.34	.33	.32	.32	.32	.31	.32	.32	.33	.33				
	.843						819	793	767	738	710	681	652	623	596	570	545	519	499	482	468	457	449	445	444	446	452	461
30	.58	.56	.54	.52	.50	.47	.45	.43	.41	.39	.37	.35	.33	.31	.30	.29	.28	.28	.27	.27	.28	.28	.29	.29				
	.784						759	733	706	677	648	618	589	561	533	507	483	455	437	421	407	397	390	386	385	388	394	404
45	.54	.52	.49	.47	.45	.43	.40	.38	.36	.34	.32	.30	.28	.27	.26	.25	.24	.23	.23	.23	.23	.24	.24	.25				
	.722						697	670	642	612	583	553	524	495	467	442	417	392	373	357	344	334	328	324	324	328	334	344
1600	.49	.47	.45	.42	.40	.38	.35	.33	.31	.29	.27	.25	.23	.22	.21	.20	.19	.19	.18	.19	.19	.20	.20	.21				
	.658						631	604	575	545	515	485	456	427	399	373	350	324	306	290	278	269	263	260	261	264	271	281
15	.44	.42	.40	.37	.35	.33	.30	.28	.26	.24	.22	.20	.18	.17	.16	.15	.14	.14	.14	.14	.14	.15	.15	.16				
	.591						564	535	506	476	445	415	385	356	329	303	280	255	237	222	210	201	196	193	195	199	206	217
30	.39	.37	.34	.32	.30	.27	.25	.23	.21	.19	.17	.15	.13	.12	.11	.10	.09	.09	.09	.09	.09	.10	.11	.12				
	.521						494	465	435	404	374	343	313	284	257	231	208	183	166	151	140	132	127	125	126	131	139	150
45	.33	.31	.29	.27	.24	.22	.20	.17	.15	.13	.11	.10	.08	.07	.06	.05	.04	.04	.04	.04	.04	.05	.06	.07				
	.450						300	269	239	210	183	157	134	110	093	079	068	060	056	055	057	062	070	081	094			

*** SIGNIFIES COS Z = 1.
 ADD 1000 TO VALUES PRECEDED BY +

TABLE B-1 SOLAR PARAMETERS COS Z
 X0 (W/M=2.)

SEP-DEC 30 N

MST	DATE																		
	SEP					OCT					NOV					DEC			
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1700	.28	.26	.24	.21	.19	.16	.14	.12	.10	.08	.06	.04	.03	.01	.00	.00	.00	.01	.02
	377	349	319	288	256	225	194	164	135	108	082	060	030	019	006	000	000	010	024
15	.23	.20	.18	.16	.13	.11	.09	.06	.04	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00
	304	274	244	212	180	149	118	087	058	031	006	000	000	000	000	000	000	000	000
30	.17	.15	.12	.10	.08	.05	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	229	199	168	136	104	072	041	010	000	000	000	000	000	000	000	000	000	000	000
45	.11	.09	.07	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	153	123	091	059	027	000	000	000	000	000	000	000	000	000	000	000	000	000	000
1800	.06	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	077	046	015	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	002	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000

*** SIGNIFIES COS Z =1.
ADD 1000 TO VALUES PRECEDED BY *

COS Z
X0 (W/M**2.)

SOLAR PARAMETERS

TABLE B-1

30 N

SEP-DEC

MST	JAN					FEB					MAR					APR								
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30					
0800	.21	.21	.21	.21	.22	.22	.23	.25	.26	.28	.30	.31	.35	.37	.39	.41	.43	.45	.48	.50	.51	.53	.54	.55
	300	297	297	301	307	317	330	349	368	389	413	438	481	510	538	566	594	621	652	675	697	716	733	748
15	.26	.26	.26	.26	.27	.27	.28	.30	.31	.33	.35	.36	.40	.42	.44	.46	.48	.50	.53	.54	.55	.58	.59	.60
	364	362	363	367	374	384	398	417	437	459	482	508	551	579	608	636	663	689	719	742	763	781	798	812
30	.30	.30	.30	.30	.31	.32	.33	.34	.36	.38	.39	.41	.45	.47	.49	.51	.53	.55	.57	.59	.61	.62	.64	.65
	426	425	426	430	438	449	463	484	503	526	550	575	619	647	674	702	729	755	784	805	825	844	859	872
45	.34	.34	.34	.35	.35	.36	.37	.39	.40	.42	.44	.46	.49	.51	.53	.55	.58	.60	.62	.64	.65	.67	.68	.69
	485	484	486	491	500	511	526	547	567	590	614	640	683	711	738	765	792	817	845	865	885	903	918	930
0900	.38	.38	.38	.39	.40	.40	.42	.43	.45	.46	.48	.50	.54	.56	.58	.60	.62	.64	.66	.68	.69	.71	.72	.73
	541	540	543	549	558	570	585	607	628	651	675	701	744	772	799	826	851	876	903	924	942	959	973	984
15	.42	.42	.42	.43	.43	.44	.46	.47	.49	.51	.52	.54	.58	.60	.62	.64	.66	.68	.70	.72	.73	.75	.76	.77
	593	593	596	603	613	626	641	664	685	708	733	759	802	829	856	882	907	931	958	977	995	1011	1024	1035
30	.45	.45	.46	.46	.47	.48	.49	.51	.53	.54	.56	.58	.62	.64	.66	.68	.70	.72	.74	.75	.77	.78	.79	.80
	641	642	646	654	664	678	694	717	738	762	787	813	856	883	909	935	959	983	1008	1027	1044	1059	1072	1083
45	.49	.49	.49	.50	.50	.51	.53	.54	.56	.58	.60	.62	.65	.67	.69	.71	.73	.75	.77	.79	.80	.81	.83	.83
	686	687	692	700	711	726	743	766	788	812	837	863	905	932	958	984	1008	1030	1055	1073	1090	1104	1116	1126
1000	.51	.52	.52	.53	.53	.55	.56	.58	.59	.61	.63	.65	.66	.70	.73	.74	.76	.78	.80	.82	.83	.84	.85	.86
	727	729	734	743	755	770	787	811	834	858	883	909	951	978	1003	1028	1051	1073	1097	1115	1131	1144	1155	1165
15	.54	.54	.55	.55	.56	.57	.59	.61	.62	.64	.66	.68	.71	.73	.75	.77	.79	.81	.83	.85	.86	.87	.88	.89
	763	766	772	782	794	810	828	852	875	899	924	950	993	1018	1044	1068	1091	1112	1135	1152	1167	1180	1191	1199
30	.56	.56	.57	.58	.59	.60	.61	.63	.65	.67	.69	.71	.74	.76	.78	.80	.82	.84	.85	.87	.88	.89	.90	.91
	795	798	805	816	829	845	864	889	912	936	962	987	1029	1055	1080	1103	1126	1146	1169	1185	1199	1211	1222	1230
45	.58	.58	.59	.60	.61	.62	.64	.65	.67	.69	.71	.73	.76	.78	.80	.82	.84	.86	.88	.89	.90	.91	.92	.93
	823	827	834	845	859	876	895	921	944	969	994	1020	1061	1087	1111	1134	1156	1176	1197	1213	1227	1238	1248	1255

*** SIGNIFIES COS 2 = 1.
ADD 1000 TO VALUES PRECEDED BY *

SOLAR PARAMETERS COS 2
XO (W/M**2.)

TABLE B-1

JAN-APR 28 N

MST	DATE																							
	JAN				FEB				MAR				APR											
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30					
1100	.60	.60	.61	.62	.63	.64	.65	.67	.69	.71	.73	.75	.78	.60	.62	.64	.86	.87	.89	.91	.92	.93	.94	.95
	846	850	859	870	885	902	922	948	971	996	*022	*047	*085	*113	*137	*160	*181	*200	*221	*235	*249	*260	*269	*276
15	.61	.61	.62	.63	.64	.65	.67	.69	.71	.73	.75	.77	.80	.82	.84	.86	.87	.89	.91	.92	.93	.94	.95	.96
30	864	869	878	890	906	923	944	970	994	*019	*044	*070	*111	*135	*159	*181	*201	*220	*240	*254	*267	*277	*286	*293
	.62	.62	.63	.64	.65	.67	.68	.70	.72	.74	.76	.78	.81	.83	.85	.87	.88	.90	.92	.93	.94	.95	.96	.97
45	877	883	893	906	922	940	961	988	*012	*037	*062	*088	*128	*152	*175	*196	*216	*234	*254	*263	*279	*289	*298	*304
	.63	.63	.64	.65	.66	.67	.69	.71	.73	.75	.77	.79	.82	.84	.86	.87	.89	.91	.92	.94	.95	.96	.96	.97
1200	886	892	903	916	933	952	973	*000	*024	*049	*075	*100	*140	*163	*186	*207	*226	*244	*262	*276	*287	*297	*304	*310
	.63	.63	.64	.65	.66	.68	.69	.72	.73	.75	.77	.79	.82	.84	.86	.88	.89	.91	.93	.94	.95	.96	.97	.97
15	889	896	907	922	939	958	979	*007	*032	*057	*082	*107	*147	*170	*192	*212	*231	*248	*266	*279	*290	*299	*306	*312
	.63	.63	.64	.65	.67	.68	.70	.72	.74	.76	.77	.79	.83	.84	.86	.88	.89	.91	.92	.94	.95	.96	.96	.97
30	888	895	907	922	940	960	981	*009	*034	*059	*084	*109	*148	*171	*193	*213	*231	*247	*264	*277	*287	*296	*303	*308
	.62	.63	.64	.65	.66	.68	.69	.72	.73	.75	.77	.79	.82	.84	.86	.88	.89	.90	.92	.93	.94	.95	.96	.96
45	882	890	902	918	936	956	978	*006	*031	*056	*081	*106	*145	*167	*188	*207	*225	*241	*258	*270	*280	*288	*295	*300
	.62	.62	.63	.64	.66	.67	.69	.71	.73	.75	.77	.79	.82	.83	.85	.87	.88	.90	.91	.92	.93	.94	.95	.95
1300	871	879	892	908	927	948	970	998	*023	*048	*073	*098	*136	*158	*178	*197	*214	*230	*246	*257	*267	*275	*282	*287
	.60	.61	.62	.63	.65	.66	.68	.70	.72	.74	.76	.78	.81	.82	.84	.86	.87	.88	.90	.91	.92	.93	.93	.94
15	855	864	877	894	913	934	957	985	*010	*035	*060	*084	*122	*143	*163	*182	*199	*213	*229	*240	*249	*257	*264	*269
	.59	.60	.61	.62	.63	.65	.67	.69	.71	.73	.74	.76	.79	.81	.83	.84	.86	.87	.88	.89	.90	.91	.92	.92
30	834	843	858	875	894	915	938	967	992	*017	*042	*066	*102	*124	*143	*161	*178	*192	*207	*219	*227	*234	*241	*246
	.57	.58	.59	.60	.62	.63	.65	.57	.69	.71	.73	.75	.78	.79	.81	.82	.84	.85	.86	.87	.88	.89	.90	.90
45	808	818	833	851	871	892	915	944	969	994	*018	*042	*078	*099	*118	*136	*152	*166	*180	*191	*200	*207	*213	*218
	.55	.56	.57	.58	.60	.61	.63	.65	.67	.69	.71	.73	.75	.77	.79	.80	.81	.83	.84	.85	.86	.87	.87	.88
778	789	804	822	842	864	887	916	941	966	990	*014	*039	*070	*088	*105	*121	*135	*149	*153	*159	*175	*181	*186	

... SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY -

SOLAR PARAMETERS COS Z
X0 (W/M*2.)

TABLE 8-1

28 N

JAN-APR

MST	JAN							FEB							MAR							APR								
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30					
1400	.53	.53	.54	.56	.57	.59	.61	.63	.65	.67	.68	.70	.73	.75	.76	.78	.79	.80	.81	.82	.83	.84	.85	.85	.81	.82	.83	.84	.85	.85
	744	755	770	789	809	831	855	884	908	933	957	980	*015	*035	*054	*070	*085	*099	*113	*123	*131	*138	*145	*150						
15	.50	.51	.52	.53	.55	.56	.58	.60	.62	.64	.66	.67	.70	.72	.73	.75	.76	.77	.78	.79	.80	.81	.82	.82	.78	.79	.80	.81	.82	.82
	705	716	733	751	772	794	818	847	871	895	919	942	977	996	*014	*031	*045	*058	*072	*082	*090	*097	*104	*109						
30	.47	.48	.49	.50	.52	.53	.55	.57	.59	.61	.63	.64	.67	.69	.70	.71	.73	.74	.75	.75	.77	.78	.78	.79	.75	.75	.77	.78	.78	.79
	662	674	690	709	730	753	776	805	829	854	877	900	934	953	970	986	*001	*014	*027	*037	*045	*052	*059	*065						
45	.44	.44	.46	.47	.48	.50	.52	.54	.56	.58	.59	.61	.64	.66	.67	.68	.69	.70	.72	.72	.73	.74	.75	.75	.72	.72	.73	.74	.75	.75
	615	627	644	663	684	707	730	759	783	807	831	853	886	905	922	938	952	965	978	987	996	*003	*010	*016						
1500	.40	.41	.42	.43	.45	.47	.48	.50	.52	.54	.56	.57	.60	.62	.63	.64	.65	.66	.68	.69	.69	.70	.71	.71	.68	.69	.69	.70	.71	.71
	565	577	594	614	635	657	681	709	733	757	780	802	835	853	870	886	899	912	925	934	943	950	957	964						
15	.36	.37	.38	.40	.41	.43	.45	.47	.48	.50	.52	.54	.56	.57	.59	.60	.61	.62	.63	.64	.65	.66	.67	.67	.63	.64	.65	.66	.67	.67
	510	523	540	560	581	604	627	656	680	703	726	747	779	797	814	829	843	855	868	878	885	894	901	908						
30	.32	.33	.34	.36	.37	.39	.40	.43	.44	.46	.48	.49	.52	.53	.55	.56	.57	.58	.59	.60	.61	.62	.63	.63	.59	.60	.61	.62	.62	.63
	453	466	483	503	524	547	570	598	622	645	667	689	720	738	754	769	783	795	808	818	826	834	842	849						
45	.28	.29	.30	.31	.33	.35	.36	.38	.40	.42	.43	.45	.47	.49	.50	.51	.52	.53	.54	.55	.56	.57	.58	.58	.54	.55	.56	.57	.58	.58
	392	405	423	443	464	487	510	538	561	584	606	627	658	675	691	706	719	732	745	754	763	772	780	787						
1600	.23	.24	.25	.27	.28	.30	.32	.34	.35	.37	.39	.40	.43	.44	.45	.46	.47	.49	.50	.50	.51	.52	.53	.54	.50	.50	.51	.52	.53	.54
	329	342	360	380	401	423	446	474	497	520	541	562	592	610	625	640	653	665	678	688	698	706	714	722						
15	.19	.20	.21	.22	.24	.25	.27	.29	.31	.32	.34	.35	.38	.39	.40	.41	.42	.43	.45	.45	.46	.47	.48	.49	.45	.45	.46	.47	.48	.49
	263	276	294	314	335	357	380	408	430	452	474	494	524	541	557	571	584	596	609	620	629	638	647	655						
30	.14	.15	.16	.17	.19	.21	.22	.24	.26	.27	.29	.30	.33	.34	.35	.36	.37	.38	.39	.40	.41	.42	.43	.43	.39	.40	.41	.42	.43	.43
	195	208	226	246	267	289	311	338	361	383	403	423	453	470	485	499	513	525	538	543	559	568	577	586						
45	.09	.10	.11	.12	.14	.16	.17	.19	.21	.22	.24	.25	.27	.29	.30	.31	.32	.33	.34	.35	.36	.37	.37	.38	.34	.35	.36	.37	.37	.38
	125	138	156	176	197	218	241	267	289	310	331	351	380	396	412	426	439	451	465	475	486	496	506	515						

JAN-APR 28 N TABLE B-1 SOLAR PARAMETERS COS 2 ** SIGNIFIES' COS 2 = 1.
 X0 (W/M**2.) ADD 1000 TO VALUES PRECEDED BY *

MST	JAN							FEB							MAR							APR						
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30			
1700	.04	.05	.06	.07	.09	.10	.12	.14	.15	.17	.18	.20	.22	.23	.24	.25	.26	.27	.29	.29	.30	.31	.32	.33	.33			
054	067	085	104	125	146	168		194	215	236	257	276	305	321	336	350	364	376	390	401	412	422	433	443	443			
15	.00	.00	.01	.02	.04	.05	.07	.09	.10	.12	.13	.14	.16	.18	.19	.20	.21	.22	.23	.24	.25	.26	.27	.27	.27			
000	000	011	031	051	072	093		119	140	161	181	200	228	244	259	273	287	299	314	325	336	347	358	369	369			
30	.00	.00	.00	.00	.00	.00	.01	.03	.05	.06	.07	.09	.11	.12	.13	.14	.15	.16	.17	.18	.19	.20	.21	.22	.22			
000	000	000	000	000	000	000	018	043	064	084	103	122	150	166	181	195	209	221	236	243	260	271	283	294	294			
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.03	.05	.06	.07	.08	.09	.10	.12	.13	.13	.14	.15	.16	.16			
000	000	000	000	000	000	000	000	000	000	006	025	043	071	087	102	116	130	143	158	170	183	195	207	219	219			
1800	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09	.10	.11	.11			
000	000	000	000	000	000	000	000	000	000	000	000	000	000	007	022	036	050	064	079	092	105	118	131	144	144			
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.02	.03	.04	.05	.05			
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	001	011	028	041	055	068	068			
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000			
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000			

JAN-APR 28 N TABLE B-1 SOLAR PARAMETERPS COS Z
 Y0 (W/M*2.) *** SIGNIFIES COS Z =1.
 ADD 1000 TO VALUES PRECEDED BY *

MST

DATE

MAY

JUN

JUL

AUG

5 10 15 20 25 30
 0000 .57 .57 .58 .59 .59 .59
 760 770 778 783 787 788
 15 .61 .62 .63 .63 .64 .64
 823 832 839 844 847 849
 30 .66 .66 .67 .68 .68 .68
 883 892 898 903 905 906
 45 .70 .71 .71 .72 .72 .72
 940 948 954 958 960 961

5 10 15 20 25 30
 .59 .59 .59 .59 .58 .58
 788 786 783 779 774 769
 .64 .64 .64 .63 .63 .63
 848 846 843 839 834 829
 .68 .68 .68 .68 .67 .67
 905 903 900 896 892 887
 .72 .72 .72 .72 .72 .71
 960 958 955 951 946 942

5 10 15 20 25 30
 .54 .54 .53 .52 .52 .51
 720 713 706 700 692 685
 .59 .59 .58 .57 .57 .56
 784 777 771 764 757 750
 .63 .63 .62 .62 .61 .60
 844 833 832 826 820 813
 .68 .67 .67 .66 .66 .65
 902 897 891 885 879 872

0000 .74 .75 .75 .76 .76 .76
 994 001 007 010 012 013
 15 .78 .78 .79 .79 .80 .80
 044 051 056 059 061 061
 30 .81 .82 .82 .83 .83 .83
 091 097 102 104 106 106
 45 .84 .85 .85 .86 .86 .86
 133 139 143 146 147 147

5 10 15 20 25 30
 .76 .76 .76 .76 .75 .75
 011 009 006 002 998 994
 .80 .80 .80 .79 .79 .79
 060 057 054 051 047 042
 .83 .83 .83 .83 .82 .82
 104 102 099 096 092 088
 .86 .86 .86 .86 .86 .85
 145 143 140 137 133 130

5 10 15 20 25 30
 .72 .71 .71 .70 .70 .69
 957 952 947 941 935 928
 .76 .75 .75 .74 .74 .73
 009 004 999 993 987 981
 .79 .79 .78 .78 .77 .77
 057 052 048 042 036 030
 .83 .82 .82 .81 .81 .80
 101 097 092 087 081 074

1000 .87 .88 .88 .89 .89 .89
 172 177 181 183 184 184
 15 .90 .90 .91 .91 .91 .91
 206 211 214 216 217 217
 30 .92 .92 .93 .93 .93 .94
 236 241 244 245 246 245
 45 .94 .94 .95 .95 .95 .95
 261 266 268 270 270 270

5 10 15 20 25 30
 .89 .89 .89 .89 .88 .88
 182 180 177 174 171 168
 .91 .91 .91 .91 .91 .91
 215 213 211 208 205 202
 .94 .94 .94 .93 .93 .93
 244 242 240 237 234 232
 .95 .95 .95 .95 .95 .95
 268 267 265 262 260 257

5 10 15 20 25 30
 .86 .85 .85 .84 .84 .83
 142 138 133 128 122 115
 .89 .88 .88 .87 .86 .86
 178 174 170 164 158 151
 .91 .91 .90 .89 .89 .88
 210 203 202 197 190 183
 .93 .93 .92 .92 .91 .90
 238 234 230 224 218 210

MAY-AUG

28 N

TABLE 8-1

SOLAR PARAMETERS

COS Z

XO (W/M*2.)

*** SIGNIFIES COS Z =1.

ADD 1000 TO VALUES PRECEDED BY +

MST	MAY					JUN					JUL					AUG								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1100	.95	.96	.96	.97	.97	.97	.97	.97	.97	.97	.97	.97	.96	.96	.96	.96	.96	.95	.95	.94	.94	.93	.93	.92
	*282	*286	*288	*290	*290	*290	*288	*287	*285	*283	*281	*279	*277	*275	*272	*270	*268	*265	*261	*257	*255	*247	*241	*233
15	.96	.97	.97	.98	.98	.98	.98	.98	.98	.98	.98	.98	.97	.98	.97	.97	.97	.97	.96	.95	.95	.95	.94	.93
	*298	*301	*304	*305	*305	*305	*304	*303	*301	*299	*293	*292	*294	*292	*290	*288	*286	*284	*280	*275	*271	*266	*259	*251
30	.97	.98	.98	.98	.99	.99	.99	.99	.99	.99	.99	.99	.97	.99	.98	.98	.98	.98	.97	.97	.95	.96	.95	.94
	*309	*312	*315	*316	*316	*316	*315	*314	*313	*311	*310	*308	*307	*305	*304	*302	*300	*297	*294	*293	*285	*279	*272	*263
45	.98	.98	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.97	.99	.99	.99	.98	.98	.98	.97	.97	.96	.95	.95
	*315	*318	*320	*322	*322	*322	*321	*321	*320	*318	*317	*316	*315	*314	*312	*311	*309	*307	*303	*299	*294	*288	*280	*271
1200	.98	.98	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.97	.99	.99	.99	.99	.99	.98	.98	.97	.97	.96	.95
	*316	*320	*322	*323	*324	*324	*323	*323	*322	*321	*320	*320	*319	*318	*317	*315	*313	*311	*307	*303	*299	*291	*283	*274
15	.98	.98	.98	.99	.99	.99	.99	.99	.99	.99	.99	.99	.97	.99	.99	.99	.99	.99	.98	.98	.97	.97	.96	.95
	*313	*316	*318	*319	*320	*320	*320	*320	*320	*319	*319	*318	*318	*317	*316	*315	*313	*311	*307	*302	*297	*290	*281	*272
30	.97	.97	.98	.98	.98	.99	.99	.99	.99	.99	.99	.99	.96	.99	.99	.99	.98	.98	.98	.97	.97	.96	.95	.94
	*304	*307	*310	*311	*312	*313	*313	*313	*313	*313	*313	*312	*312	*312	*311	*310	*308	*306	*301	*297	*291	*284	*275	*264
45	.96	.96	.97	.97	.97	.98	.98	.98	.98	.98	.98	.98	.96	.98	.98	.98	.98	.98	.97	.97	.95	.95	.94	.93
	*291	*294	*296	*298	*299	*300	*301	*301	*301	*302	*302	*302	*301	*302	*301	*300	*298	*296	*291	*285	*280	*272	*263	*252
1300	.95	.95	.95	.96	.96	.96	.97	.97	.97	.97	.97	.97	.97	.97	.97	.97	.97	.96	.96	.95	.95	.94	.93	.92
	*273	*276	*279	*280	*282	*283	*284	*285	*286	*286	*287	*287	*287	*287	*287	*286	*284	*281	*277	*271	*265	*256	*247	*235
15	.93	.93	.94	.94	.94	.95	.95	.95	.95	.96	.96	.96	.95	.96	.96	.96	.95	.95	.95	.94	.93	.92	.91	.90
	*250	*253	*256	*258	*260	*261	*263	*264	*265	*266	*267	*268	*263	*268	*268	*267	*265	*262	*257	*252	*244	*236	*225	*213
30	.91	.91	.92	.92	.93	.93	.93	.93	.94	.94	.94	.94	.91	.94	.94	.94	.94	.93	.93	.92	.91	.90	.89	.88
	*223	*226	*229	*232	*234	*235	*237	*239	*240	*242	*243	*244	*245	*245	*244	*243	*241	*238	*233	*227	*220	*210	*199	*186
45	.89	.89	.89	.90	.90	.91	.91	.91	.91	.92	.92	.92	.91	.92	.92	.92	.91	.91	.91	.90	.89	.88	.87	.86
	*191	*195	*198	*200	*203	*205	*208	*210	*211	*213	*215	*216	*217	*217	*217	*216	*214	*210	*205	*193	*180	*168	*155	

MAY-AUG 28 N TABLE B-1 SOLAR PARAMETERS CCS 2 ... SIGNIFIES COS 2 = 1.
 ADD 1000 TO VALUES PRECEDED BY -

MST	MAY					JUN					JUL					AUG								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1400	.86	.86	.87	.87	.88	.88	.88	.89	.89	.89	.89	.89	.90	.90	.89	.89	.89	.89	.88	.87	.87	.86	.85	.83
	.155	.159	.162	.165	.168	.171	.174	.176	.178	.180	.182	.184	.185	.185	.185	.184	.181	.178	.172	.165	.156	.146	.133	.119
15	.83	.83	.84	.84	.85	.85	.85	.86	.86	.86	.87	.87	.87	.87	.87	.87	.86	.86	.85	.85	.84	.83	.82	.80
	.114	.118	.122	.126	.129	.132	.136	.139	.141	.144	.146	.147	.149	.149	.149	.147	.145	.141	.135	.127	.118	.107	.094	.078
30	.80	.80	.81	.81	.81	.82	.82	.83	.83	.83	.83	.84	.84	.84	.84	.84	.83	.83	.82	.81	.81	.80	.78	.77
	.070	.074	.079	.083	.086	.090	.094	.097	.100	.103	.105	.107	.109	.109	.109	.107	.105	.101	.093	.085	.075	.064	.050	.034
45	.76	.76	.77	.78	.78	.78	.79	.79	.80	.80	.80	.80	.80	.80	.80	.80	.80	.80	.79	.73	.77	.76	.75	.73
	.021	.026	.031	.036	.040	.044	.048	.052	.056	.059	.061	.063	.065	.065	.065	.064	.061	.056	.048	.040	.023	.017	.002	.985
1500	.72	.73	.73	.74	.74	.75	.75	.76	.76	.76	.77	.77	.77	.77	.77	.77	.76	.76	.75	.74	.73	.72	.71	.69
	.969	.975	.980	.985	.990	.994	.000	.004	.007	.011	.014	.016	.016	.018	.018	.016	.013	.008	.000	.991	.979	.966	.951	.933
15	.68	.69	.69	.70	.70	.71	.71	.72	.72	.72	.73	.73	.73	.73	.73	.73	.72	.72	.71	.70	.69	.68	.67	.65
	.914	.920	.926	.931	.936	.942	.947	.952	.956	.960	.963	.966	.967	.968	.967	.965	.962	.956	.947	.938	.926	.912	.896	.877
30	.64	.64	.65	.65	.66	.67	.67	.68	.68	.68	.69	.69	.69	.69	.69	.68	.68	.68	.67	.65	.65	.64	.62	.61
	.856	.862	.868	.874	.880	.886	.892	.897	.902	.906	.909	.912	.914	.914	.913	.911	.907	.901	.892	.882	.869	.854	.837	.818
45	.59	.60	.60	.61	.62	.62	.63	.63	.64	.64	.64	.65	.65	.65	.65	.64	.64	.64	.63	.62	.61	.59	.58	.56
	.794	.801	.808	.814	.821	.827	.834	.840	.845	.849	.853	.855	.857	.857	.857	.854	.850	.843	.833	.822	.809	.794	.776	.756
1600	.54	.55	.56	.56	.57	.58	.58	.59	.59	.60	.60	.60	.60	.60	.60	.60	.59	.59	.58	.57	.55	.55	.53	.51
	.730	.738	.745	.752	.759	.766	.774	.779	.785	.789	.793	.796	.793	.798	.797	.794	.790	.783	.772	.760	.747	.730	.712	.691
15	.49	.50	.51	.51	.52	.53	.54	.54	.55	.55	.55	.56	.56	.56	.56	.55	.55	.54	.53	.52	.51	.50	.48	.46
	.664	.672	.680	.687	.695	.702	.711	.717	.723	.728	.732	.735	.736	.737	.735	.732	.727	.720	.708	.696	.681	.664	.645	.624
30	.44	.45	.46	.46	.47	.48	.49	.49	.50	.50	.50	.51	.51	.51	.51	.50	.49	.49	.48	.47	.46	.45	.43	.41
	.595	.604	.612	.621	.629	.637	.646	.653	.659	.664	.668	.671	.673	.673	.671	.668	.662	.654	.642	.629	.614	.596	.576	.554
45	.39	.40	.41	.41	.42	.43	.44	.44	.45	.45	.46	.46	.46	.46	.46	.45	.44	.44	.43	.42	.41	.39	.38	.36
	.525	.534	.543	.552	.561	.570	.579	.586	.593	.598	.603	.606	.607	.607	.605	.601	.595	.587	.574	.560	.544	.526	.505	.482

MAY-AUG 28 N TABLE B-1 SOLAR PARAMETERS COS Z *** SIGNIFIES COS Z = 1.
X0 (W/M**2.) ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					JUL					AUG							
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30					
1700	.34	.35	.35	.36	.37	.38	.38	.39	.40	.40	.40	.41	.41	.41	.41	.40	.39	.38	.37	.35	.34	.32	.30
	453	463	473	482	492	501	511	519	525	531	536	539	540	540	538	533	527	518	504	490	473	454	433
15	.28	.29	.30	.31	.32	.32	.33	.34	.34	.35	.35	.36	.36	.36	.35	.35	.34	.33	.31	.30	.29	.27	.25
	380	391	401	411	421	431	442	450	457	463	467	470	472	471	469	464	457	448	433	418	401	381	359
30	.23	.24	.25	.25	.26	.27	.28	.29	.29	.30	.30	.30	.30	.30	.30	.30	.29	.28	.27	.25	.23	.21	.19
	306	317	329	340	350	360	372	380	387	393	398	401	402	402	399	394	386	376	361	345	327	307	284
45	.17	.18	.19	.20	.21	.22	.23	.23	.24	.24	.25	.25	.25	.25	.25	.24	.24	.23	.22	.20	.19	.17	.16
	231	243	255	267	278	289	301	310	317	324	328	331	332	332	328	323	315	304	288	272	253	232	208
1800	.12	.13	.14	.15	.16	.16	.17	.18	.19	.19	.20	.20	.20	.20	.19	.19	.18	.17	.16	.15	.13	.12	.10
	157	169	182	194	206	218	230	239	247	253	258	261	262	261	257	251	243	232	215	193	179	157	132
15	.06	.07	.08	.09	.10	.11	.12	.13	.13	.14	.14	.14	.15	.14	.14	.14	.13	.12	.11	.09	.08	.06	.04
	082	095	109	122	134	146	159	168	177	183	188	191	192	190	186	180	171	159	142	121	104	081	056
30	.01	.02	.03	.04	.05	.06	.07	.07	.08	.09	.09	.09	.09	.09	.09	.08	.07	.07	.05	.04	.02	.00	.00
	008	022	036	050	063	075	086	098	106	113	118	121	121	120	115	108	099	087	068	050	029	006	000
45	.00	.00	.00	.00	.00	.00	.01	.02	.03	.03	.04	.04	.04	.04	.03	.03	.02	.01	.00	.00	.00	.00	.00
	000	000	000	000	000	005	018	028	037	044	049	051	052	049	045	037	027	015	000	000	000	000	000

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY .

COS Z
XO (W/M*2.)

SOLAR PARAMETERS

28 N

MAY-AUG

MST	SEP					OCT					DATE					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
0800	.50	.49	.49	.48	.47	.46	.44	.43	.42	.40	.39	.37	.35	.34	.32	.30	.29	.27	.26	.25	.23	.23	.22	.21	
	676	667	658	647	636	623	609	593	576	557	538	517	491	469	447	424	403	383	364	347	331	319	309	302	
15	.55	.54	.53	.52	.51	.50	.49	.48	.46	.45	.43	.42	.40	.38	.36	.35	.33	.32	.30	.29	.28	.27	.26	.26	
	741	732	723	713	701	688	673	657	640	621	601	580	554	531	509	487	465	445	426	409	394	382	373	366	
30	.60	.59	.58	.57	.56	.55	.54	.52	.51	.49	.48	.46	.44	.42	.41	.39	.37	.36	.34	.33	.32	.31	.31	.30	
	804	795	786	775	763	750	735	719	701	682	662	640	614	591	568	546	525	504	486	469	455	443	434	428	
45	.64	.63	.62	.61	.60	.59	.58	.57	.55	.54	.52	.50	.48	.46	.45	.43	.41	.40	.38	.37	.35	.35	.35	.34	
	863	854	845	834	822	808	793	777	759	739	719	697	670	647	625	602	581	561	542	525	512	500	492	486	
0900	.68	.67	.66	.66	.64	.63	.62	.60	.59	.57	.56	.54	.52	.50	.48	.47	.45	.44	.42	.41	.40	.39	.39	.38	
	919	911	901	890	877	864	848	831	813	793	772	750	723	700	677	655	633	613	595	579	565	554	546	542	
15	.72	.71	.70	.69	.68	.67	.66	.64	.63	.61	.59	.58	.55	.54	.52	.50	.49	.47	.46	.45	.44	.43	.42	.42	
	972	963	953	942	929	915	899	882	863	843	821	799	772	749	726	704	682	663	645	629	616	605	598	594	
30	.76	.75	.74	.73	.72	.70	.69	.68	.66	.64	.63	.61	.59	.57	.55	.53	.52	.50	.49	.48	.47	.46	.46	.45	
	1020	1011	1001	990	977	962	946	928	909	888	867	844	817	794	771	748	727	708	690	675	662	652	645	642	
45	.79	.78	.77	.76	.75	.74	.72	.71	.69	.67	.66	.64	.62	.60	.58	.56	.55	.53	.52	.51	.50	.49	.49	.49	
	1065	1056	1045	1034	1020	1005	988	970	951	930	908	885	857	834	811	789	768	749	732	717	704	695	689	686	
1000	.82	.81	.80	.79	.78	.76	.75	.73	.72	.70	.69	.66	.64	.62	.61	.59	.57	.56	.55	.53	.53	.52	.52	.51	
	1105	1096	1085	1073	1059	1044	1027	1008	988	967	945	922	894	870	847	825	805	786	769	755	743	734	729	727	
15	.85	.84	.83	.82	.80	.79	.77	.76	.74	.72	.70	.69	.66	.65	.63	.61	.60	.58	.57	.55	.55	.54	.54	.54	
	1141	1132	1121	1108	1094	1078	1060	1041	1021	999	977	953	925	902	879	857	837	818	802	789	777	769	764	763	
30	.87	.86	.85	.84	.82	.81	.79	.78	.76	.74	.72	.71	.68	.67	.65	.63	.62	.60	.59	.58	.57	.57	.56	.56	
	1173	1163	1151	1138	1123	1107	1089	1069	1049	1027	1004	981	952	929	906	885	865	846	830	817	807	799	795	794	
45	.89	.88	.87	.86	.84	.83	.81	.80	.78	.76	.74	.72	.70	.68	.66	.65	.63	.62	.61	.60	.59	.58	.58	.58	
	1200	1189	1177	1164	1148	1131	1113	1093	1072	1049	1026	1003	974	951	929	907	887	870	854	841	832	825	822	822	

SEP-DEC 28 N TABLE B-1 SOLAR PARAMETERS COS Z *** SIGNIFIES COS Z = 1.
 ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					DATE					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1100	.91	.90	.88	.87	.86	.84	.83	.81	.79	.77	.75	.73	.71	.69	.68	.66	.64	.63	.62	.61	.60	.60	.60	.60	
	*222	*211	*198	*184	*168	*151	*132	*111	*090	*067	*044	*020	992	968	946	925	906	888	873	861	852	846	843	844	
15	.92	.91	.90	.88	.87	.85	.84	.82	.80	.78	.76	.74	.72	.70	.68	.67	.65	.64	.63	.62	.61	.61	.61	.61	
	*239	*227	*214	*200	*183	*165	*146	*125	*103	*080	*056	*032	*004	961	959	938	919	902	888	873	868	862	860	862	
30	.93	.92	.90	.89	.88	.86	.84	.82	.81	.79	.77	.75	.73	.71	.69	.67	.66	.65	.64	.63	.62	.62	.62	.62	
	*251	*239	*225	*210	*193	*175	*154	*133	*111	*087	*063	*040	*011	988	966	946	927	911	897	885	873	874	873	875	
45	.93	.92	.91	.89	.88	.86	.85	.83	.81	.79	.77	.75	.73	.71	.69	.68	.66	.65	.64	.63	.63	.62	.62	.62	
	*258	*246	*231	*215	*198	*179	*158	*136	*113	*090	*066	*042	*013	990	969	949	930	915	901	891	884	880	880	883	
1200	.94	.92	.91	.89	.88	.86	.84	.83	.81	.79	.77	.75	.72	.71	.69	.67	.66	.65	.64	.63	.63	.62	.62	.63	
	*260	*247	*232	*216	*197	*178	*156	*134	*111	*087	*063	*039	*010	988	966	946	929	914	901	891	885	882	883	886	
15	.93	.92	.91	.89	.87	.86	.84	.82	.80	.78	.76	.74	.72	.70	.68	.67	.66	.64	.63	.62	.62	.62	.62	.63	
	*257	*244	*228	*211	*192	*171	*150	*127	*103	*079	*055	*030	*002	980	959	939	922	907	896	887	881	879	880	885	
30	.93	.91	.90	.88	.87	.85	.83	.81	.79	.77	.75	.73	.71	.69	.68	.66	.65	.64	.63	.62	.62	.62	.62	.62	
	*249	*235	*219	*201	*181	*160	*138	*115	*091	*066	*042	*017	989	967	946	927	911	897	885	877	872	871	873	878	
45	.92	.90	.89	.87	.86	.84	.82	.80	.78	.76	.74	.72	.70	.68	.66	.65	.64	.63	.62	.61	.61	.61	.61	.61	
	*236	*221	*204	*186	*165	*144	*121	*097	*073	*048	*023	*999	971	949	929	910	894	881	870	863	859	858	861	867	
1300	.90	.89	.87	.86	.84	.82	.80	.78	.76	.74	.72	.70	.68	.66	.65	.63	.62	.61	.60	.60	.59	.59	.60	.60	
	*218	*202	*185	*166	*145	*122	*099	*075	*050	*025	*000	*976	948	926	906	888	873	860	850	844	840	840	844	850	
15	.89	.87	.86	.84	.82	.80	.78	.76	.74	.72	.70	.68	.66	.64	.63	.61	.60	.59	.59	.58	.58	.58	.58	.59	
	*195	*179	*161	*140	*119	*096	*072	*047	*022	*997	*972	*948	920	899	879	862	847	835	826	820	817	818	822	829	
30	.87	.85	.84	.82	.80	.78	.76	.74	.72	.70	.68	.66	.64	.62	.61	.59	.58	.57	.57	.55	.55	.56	.56	.57	
	*168	*150	*131	*111	*088	*065	*040	*015	*990	*965	*940	*915	883	867	848	831	816	805	796	791	789	791	795	804	
45	.84	.83	.81	.79	.77	.75	.73	.71	.69	.67	.65	.63	.61	.59	.58	.57	.56	.55	.54	.53	.54	.54	.54	.55	
	*135	*117	*098	*076	*053	*029	*004	*979	*953	*927	*902	*878	851	830	811	795	781	770	763	759	757	759	765	773	

SEP-DEC 28 N TABLE B-1 SOLAR PARAMETERS COS Z ... SIGNIFIES COS Z = 1.
 ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					DATE					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1400	.82	.80	.78	.76	.74	.72	.70	.68	.66	.64	.62	.60	.58	.57	.55	.54	.53	.52	.51	.51	.51	.51	.52	.52	
	.099	.080	.059	.037	.013	.989	.963	.937	.911	.886	.861	.837	.810	.789	.771	.755	.742	.732	.724	.721	.720	.723	.729	.739	
15	.78	.77	.75	.73	.71	.69	.67	.65	.63	.61	.59	.57	.55	.53	.52	.51	.50	.49	.48	.48	.48	.48	.49	.49	
	.057	.038	.016	.994	.969	.944	.918	.892	.866	.840	.815	.791	.764	.741	.725	.711	.698	.689	.682	.679	.679	.683	.690	.700	
30	.75	.73	.72	.70	.68	.66	.63	.61	.59	.57	.55	.53	.51	.50	.48	.47	.46	.46	.45	.45	.45	.45	.46	.46	
	.012	.992	.970	.946	.921	.895	.869	.842	.816	.790	.765	.741	.714	.695	.677	.662	.651	.642	.636	.633	.634	.638	.646	.656	
45	.71	.70	.68	.66	.64	.62	.60	.57	.55	.53	.51	.49	.47	.46	.45	.44	.43	.42	.42	.41	.41	.42	.42	.43	
	.963	.941	.919	.894	.869	.842	.816	.789	.762	.736	.711	.687	.661	.642	.625	.610	.599	.591	.586	.584	.585	.590	.598	.609	
1500	.67	.66	.64	.62	.60	.58	.55	.53	.51	.49	.47	.45	.43	.42	.41	.40	.39	.38	.38	.38	.38	.38	.39	.40	
	.909	.888	.864	.839	.813	.786	.759	.731	.704	.678	.653	.630	.604	.585	.569	.555	.544	.537	.532	.531	.533	.539	.547	.559	
15	.63	.61	.59	.57	.55	.53	.51	.49	.47	.45	.43	.41	.39	.38	.36	.35	.34	.34	.34	.34	.34	.34	.35	.36	
	.853	.830	.806	.780	.753	.726	.698	.671	.643	.617	.592	.569	.544	.525	.509	.496	.486	.479	.475	.475	.477	.483	.492	.504	
30	.59	.57	.55	.53	.51	.49	.46	.44	.42	.40	.38	.36	.34	.33	.32	.31	.30	.30	.29	.29	.30	.30	.31	.32	
	.793	.769	.744	.718	.691	.663	.635	.607	.579	.553	.528	.505	.480	.462	.447	.434	.425	.418	.415	.415	.418	.425	.434	.447	
45	.54	.52	.50	.48	.46	.44	.41	.39	.37	.35	.33	.32	.30	.28	.27	.26	.26	.25	.25	.25	.25	.26	.26	.27	
	.730	.705	.680	.653	.625	.597	.568	.540	.513	.486	.462	.439	.414	.396	.381	.369	.361	.355	.352	.353	.357	.363	.373	.386	
1600	.49	.47	.45	.43	.41	.39	.36	.34	.32	.30	.28	.27	.25	.24	.22	.22	.21	.21	.20	.20	.21	.21	.22	.23	
	.664	.639	.612	.585	.556	.528	.499	.471	.443	.417	.392	.370	.345	.328	.314	.302	.294	.289	.287	.285	.292	.299	.310	.323	
15	.44	.42	.40	.38	.36	.33	.31	.29	.27	.25	.23	.22	.20	.18	.17	.17	.16	.16	.16	.15	.16	.17	.17	.18	
	.595	.570	.543	.515	.486	.456	.427	.399	.371	.345	.321	.298	.275	.258	.244	.233	.225	.220	.219	.220	.225	.233	.243	.257	
30	.39	.37	.35	.33	.30	.28	.26	.24	.22	.20	.18	.16	.15	.13	.12	.12	.11	.11	.11	.11	.11	.12	.12	.13	
	.525	.498	.471	.442	.413	.383	.354	.325	.298	.271	.247	.225	.202	.185	.172	.161	.154	.150	.149	.151	.150	.164	.175	.188	
45	.34	.32	.29	.27	.25	.23	.20	.18	.16	.14	.12	.11	.09	.08	.07	.06	.06	.06	.06	.05	.06	.07	.07	.08	
	.452	.425	.397	.368	.338	.308	.279	.250	.222	.196	.172	.150	.127	.111	.098	.088	.081	.078	.077	.080	.085	.094	.105	.118	

TABLE B-1 SOLAR PARAMETERS COS Z
 *** SIGNIFIES COS Z = 1.
 ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					DATE					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1700	.28	.26	.24	.22	.19	.17	.15	.13	.11	.09	.07	.05	.04	.03	.02	.01	.01	.00	.00	.01	.01	.02	.02	.03	
	378	351	322	292	262	232	202	173	145	119	095	074	051	036	023	014	008	004	004	007	013	022	033	047	
15	.22	.20	.18	.16	.14	.11	.09	.07	.05	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	303	275	245	215	184	154	124	095	068	042	018	000	000	000	000	000	000	000	000	000	000	000	000	000	
30	.17	.15	.12	.10	.08	.06	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	226	198	168	137	106	076	046	017	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
45	.11	.09	.07	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	149	120	090	059	028	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
1800	.05	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	072	042	012	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

(W/M=2.)

SOLAR PARAMETERS

TABLE B-1

28 N

SEP-DEC

COS Z

XO

MST	DATE												APR												
	JAN				FEB				MAR				APR												
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
0000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
0100	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
0200	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

*** SIGNIFIES CDS 2 =1.
ADD 1000 TO VALUES PRECEDED BY .

SOLAR PARAMETERS COS 2
XO (W/M**2.)

TABLE B-1

80 N

JAN-APR

PREVIOUS PAGE
IS BLANK

6

MST	DATE												APR												
	JAN						FEB						MAR						APR						
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.05	.09	.12	.15	.18	.22	.25	.28	.31	.34	.36
	000	000	000	000	000	000	000	000	000	000	000	000	000	025	071	117	163	208	252	304	345	384	422	458	491
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.04	.08	.11	.14	.18	.21	.25	.27	.30	.33	.36
	000	000	000	000	000	000	000	000	000	000	000	000	000	015	060	106	152	197	241	292	334	373	411	446	480
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.04	.07	.10	.13	.17	.21	.24	.27	.29	.32	.35
	000	000	000	000	000	000	000	000	000	000	000	000	000	003	049	094	140	185	229	281	322	361	399	435	468
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.06	.09	.13	.16	.20	.23	.25	.29	.31	.34
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	036	082	128	172	217	268	303	349	387	423	456
1600	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.05	.08	.12	.15	.19	.22	.25	.28	.30	.33
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	023	069	114	159	204	255	295	336	374	410	443
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.04	.07	.11	.14	.18	.21	.24	.27	.29	.32
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	010	055	101	146	190	242	283	323	361	396	430
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.06	.10	.13	.17	.20	.23	.26	.28	.31
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	041	087	132	176	228	263	309	347	383	416
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.05	.09	.12	.16	.19	.22	.25	.27	.30
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	027	072	117	161	213	255	295	333	369	403
1700	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.04	.07	.11	.15	.18	.21	.23	.26	.29
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	012	058	102	147	198	240	280	318	354	388
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.06	.10	.13	.17	.20	.22	.25	.28
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	042	087	132	183	225	265	303	340	374
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.05	.09	.12	.15	.18	.21	.24	.27
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	027	072	116	168	210	250	288	325	359
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.04	.07	.11	.14	.17	.20	.23	.26
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	011	056	101	153	195	235	273	310	344

JAN-APR 80 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/H**2.) *** SIGNIFIES COS Z =1. ADD 1000 TO VALUES PRECEDED BY .

MST

DATE

	JAN					FEB					MAR					APR				
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
2100	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.04	.07	.10	.13	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	013	055	095	134	170	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.03	.06	.09	.12	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	002	044	085	124	160	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.03	.06	.08	.11	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	003	035	075	114	151	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.02	.05	.08	.11	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	003	026	067	105	142	
2200	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.01	.04	.07	.10	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	003	018	059	098	134	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.01	.04	.07	.10	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	003	011	052	091	128	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.03	.06	.09	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	003	034	045	085	122	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.03	.06	.09	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	003	000	040	080	117	
2300	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.03	.06	.08	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	003	000	036	075	112	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.02	.05	.08	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	003	000	033	072	109	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.02	.05	.08	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	003	000	030	070	107	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.02	.05	.08	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	003	000	029	068	106	

JAN-APR

80 N

TABLE B-1

SOLAR PARAMETERS
X0 (W/M**2.)*** SIGNIFIES COS Z =1.
ADD 1000 TO VALUES PRECEDED BY *

NST	MAY					JUN					JUL					AUG				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30		
0300	.16	.18	.20	.22	.24	.25	.26	.27	.28	.28	.28	.27	.27	.26	.25	.23	.22	.20	.17	.15
	209	240	269	294	315	333	350	360	366	369	368	363	354	342	327	308	286	262	228	197
15	.16	.19	.21	.23	.24	.26	.27	.28	.28	.29	.29	.28	.28	.27	.25	.24	.22	.21	.18	.15
	219	251	279	304	326	344	360	370	376	379	378	373	364	352	337	318	297	272	238	203
30	.17	.20	.22	.24	.25	.27	.28	.29	.29	.29	.29	.29	.28	.27	.26	.25	.23	.21	.19	.16
	231	262	291	315	337	355	371	381	387	389	388	383	375	363	348	329	307	283	249	213
45	.18	.20	.23	.25	.26	.28	.29	.30	.30	.30	.30	.30	.29	.28	.27	.26	.24	.22	.20	.17
	243	274	302	327	348	366	383	392	398	401	399	394	386	374	359	340	319	294	261	230
0400	.19	.21	.24	.25	.27	.28	.30	.30	.31	.31	.31	.31	.30	.29	.28	.27	.25	.23	.21	.19
	256	287	315	339	361	378	395	404	410	412	411	406	398	386	370	352	330	306	273	242
15	.20	.22	.25	.26	.28	.29	.31	.31	.32	.32	.32	.32	.31	.30	.29	.28	.26	.24	.21	.19
	269	300	328	352	373	391	407	416	422	425	423	418	410	398	383	364	343	318	285	255
30	.21	.23	.25	.27	.29	.30	.32	.32	.33	.33	.33	.33	.32	.31	.30	.28	.27	.25	.22	.20
	282	313	341	365	386	404	420	429	435	437	436	431	422	410	395	377	355	331	298	263
45	.22	.24	.27	.28	.30	.31	.33	.33	.34	.34	.34	.34	.33	.32	.31	.29	.28	.26	.23	.21
	296	327	354	379	400	417	433	442	448	450	449	444	435	423	408	390	369	344	312	282
0500	.23	.25	.28	.29	.31	.32	.34	.34	.35	.35	.35	.35	.34	.33	.32	.30	.29	.27	.25	.22
	310	341	368	392	413	430	446	455	461	463	462	457	448	436	421	403	382	358	325	295
15	.24	.26	.29	.30	.32	.33	.35	.35	.36	.36	.36	.36	.35	.34	.33	.31	.30	.28	.26	.23
	325	355	382	406	427	444	460	469	475	477	475	470	462	450	435	417	396	372	339	310
30	.25	.28	.30	.32	.33	.34	.36	.36	.37	.37	.37	.37	.36	.35	.34	.33	.31	.29	.27	.24
	339	369	397	421	441	458	474	483	488	490	489	484	475	464	449	431	410	386	354	324
45	.26	.29	.31	.33	.34	.35	.37	.37	.38	.38	.38	.38	.37	.36	.35	.34	.32	.30	.28	.25
	354	384	411	435	455	472	488	497	502	504	502	497	489	477	463	445	424	400	368	339

MAY-AUG 80 N TABLE B-1 SOLAR PARAMETERS COS Z *** SIGNIFIES COS Z = 1.
 X0 (W/M**2.) ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					DATE					JUL					AUG				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
0600	.27	.30	.32	.34	.35	.37	.38	.38	.39	.39	.39	.39	.38	.37	.36	.35	.33	.31	.29	.27	.24	.22	.19	.16	
	368	399	425	449	469	486	501	510	516	518	516	511	503	491	477	459	438	414	382	353	321	288	252	214	
15	.29	.31	.33	.35	.36	.38	.39	.40	.40	.40	.40	.40	.39	.38	.37	.36	.34	.32	.30	.28	.25	.23	.20	.17	
30	.383	413	440	463	483	500	515	524	530	532	530	525	517	505	491	473	452	429	397	363	335	302	267	229	
	.30	.32	.34	.36	.37	.39	.40	.41	.41	.41	.41	.41	.40	.39	.38	.37	.35	.33	.31	.29	.26	.24	.21	.18	
45	.398	428	454	478	498	514	529	538	543	545	544	539	531	519	504	487	466	443	411	382	351	317	282	244	
	.31	.33	.35	.37	.38	.40	.41	.42	.42	.42	.42	.42	.41	.40	.39	.38	.36	.34	.32	.30	.27	.25	.22	.19	
0700	.412	442	468	492	511	528	.543	552	557	559	557	553	544	533	518	501	480	457	426	397	365	332	296	259	
	.32	.34	.36	.38	.39	.41	.42	.43	.43	.43	.43	.43	.42	.41	.40	.39	.37	.35	.33	.31	.28	.26	.23	.20	
15	.426	456	482	505	525	542	.557	565	571	572	571	566	558	547	532	515	494	471	440	411	380	346	311	274	
	.33	.35	.37	.39	.40	.42	.43	.44	.44	.44	.44	.44	.43	.42	.41	.40	.38	.37	.34	.32	.30	.27	.24	.21	
30	.440	470	496	519	539	555	.570	579	584	586	584	579	571	560	546	528	508	485	454	425	394	361	325	288	
	.34	.36	.38	.40	.41	.43	.44	.45	.45	.45	.45	.45	.44	.43	.42	.41	.39	.38	.35	.33	.31	.28	.25	.23	
45	.454	483	510	532	552	568	.583	592	597	599	597	592	584	573	559	541	521	498	467	439	408	375	339	302	
	.35	.37	.39	.41	.42	.44	.45	.46	.46	.46	.46	.46	.45	.44	.43	.42	.40	.39	.36	.34	.32	.29	.26	.24	
0800	.467	497	523	545	565	581	.596	604	609	611	610	605	597	586	572	554	534	512	481	452	421	388	353	316	
	.36	.38	.40	.42	.43	.45	.46	.46	.47	.47	.47	.47	.46	.45	.44	.43	.41	.40	.37	.35	.33	.30	.27	.25	
15	.480	509	535	558	577	593	.608	617	622	624	622	617	609	598	584	567	547	524	494	465	434	401	366	329	
	.37	.39	.41	.43	.44	.45	.47	.47	.48	.48	.48	.48	.47	.46	.45	.44	.42	.40	.38	.35	.34	.31	.28	.26	
30	.493	522	547	570	589	605	.620	628	633	635	634	629	621	610	596	579	559	537	506	473	447	414	379	342	
	.38	.40	.42	.44	.45	.46	.48	.48	.49	.49	.49	.48	.48	.47	.46	.45	.43	.41	.39	.37	.34	.32	.29	.26	
45	.504	533	559	581	601	616	.631	640	645	647	645	641	633	622	608	591	571	548	518	490	459	426	391	355	
	.38	.41	.43	.44	.46	.47	.48	.49	.49	.50	.50	.49	.49	.48	.47	.45	.44	.42	.40	.38	.35	.33	.30	.27	
	.516	544	570	592	611	627	.642	650	655	657	656	651	644	633	619	602	562	560	529	501	471	438	403	366	

TABLE B-1 SOLAR PARAMETERS COS Z
XO (W/M+2.) *** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					JUL					AUG				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30		
0900	.39	.41	.43	.45	.47	.48	.49	.50	.50	.50	.50	.50	.49	.49	.48	.46	.45	.43	.41	.39
	526	555	580	602	622	637	652	660	666	667	666	662	654	643	629	613	593	571	540	512
15	.40	.42	.44	.46	.47	.49	.50	.50	.51	.51	.51	.51	.50	.49	.48	.47	.45	.44	.41	.39
	536	565	590	612	631	647	661	670	675	677	676	671	664	653	639	622	603	581	550	522
30	.41	.43	.45	.47	.48	.49	.50	.51	.52	.52	.52	.51	.51	.50	.49	.48	.46	.44	.42	.40
	545	574	599	621	640	656	670	679	684	686	695	680	673	662	648	632	612	590	560	532
45	.41	.43	.45	.47	.49	.50	.51	.52	.52	.52	.52	.52	.51	.51	.50	.48	.47	.45	.43	.41
	554	582	607	629	648	664	678	687	692	694	693	688	681	670	657	640	621	599	568	541
1000	.42	.44	.46	.48	.49	.50	.52	.52	.53	.53	.53	.53	.52	.51	.50	.49	.47	.46	.43	.41
	561	589	614	636	655	671	685	694	699	701	700	696	688	678	664	648	629	606	576	543
15	.42	.44	.46	.48	.50	.51	.52	.53	.53	.53	.53	.53	.53	.52	.51	.49	.48	.46	.44	.42
	568	596	621	643	662	677	692	700	706	708	707	703	695	685	671	655	636	614	584	555
30	.43	.45	.47	.49	.50	.51	.53	.53	.54	.54	.54	.54	.53	.52	.51	.50	.48	.47	.44	.42
	574	602	627	649	667	683	698	706	711	714	713	708	701	691	677	661	642	620	590	562
45	.43	.45	.47	.49	.50	.52	.53	.54	.54	.54	.54	.54	.53	.53	.52	.50	.49	.47	.45	.43
	579	607	632	654	672	688	702	711	716	719	718	713	706	696	683	666	647	625	595	568
1100	.43	.46	.47	.49	.51	.52	.53	.54	.54	.55	.55	.54	.54	.53	.52	.51	.49	.47	.45	.43
	583	611	636	657	676	692	706	715	720	723	722	718	711	700	687	671	652	630	600	572
15	.44	.46	.48	.49	.51	.52	.53	.54	.55	.55	.55	.54	.54	.53	.52	.51	.49	.48	.45	.43
	586	614	639	660	679	695	709	718	724	726	725	721	714	704	691	674	655	633	604	576
30	.44	.46	.48	.50	.51	.52	.54	.54	.55	.55	.55	.55	.54	.53	.52	.51	.50	.48	.46	.43
	588	616	641	663	681	697	712	720	726	728	727	723	716	706	693	677	658	636	606	578
45	.44	.46	.48	.50	.51	.52	.54	.54	.55	.55	.55	.55	.54	.54	.52	.51	.50	.48	.46	.44
	589	617	642	664	682	698	713	722	727	730	729	725	718	708	695	679	660	638	608	580

*** SIGNIFIES COS 2 = 1.
ADD 1000 TO VALUES PRECEDED BY *

TABLE D-1 SOLAR PARAMETERS COS 2
X0 (W/M**2.)

MAY-AUG 80 N

MST	MAY					JUN					JUL					AUG				
	DATE					DATE					DATE					DATE				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30		
1200	.44	.46	.48	.50	.51	.52	.54	.54	.55	.55	.55	.55	.54	.54	.53	.51	.50	.48		
	590	617	642	664	683	698	713	722	728	730	729	726	719	709	696	680	661	639		
15	.44	.46	.48	.50	.51	.52	.54	.54	.55	.55	.55	.55	.54	.54	.53	.51	.50	.48		
	589	617	641	663	682	698	713	722	727	730	729	725	719	709	696	680	661	639		
30	.44	.46	.48	.50	.51	.52	.54	.54	.55	.55	.55	.55	.54	.53	.52	.51	.50	.48		
	587	615	640	662	680	696	711	720	726	728	728	724	717	708	695	679	660	638		
45	.43	.46	.48	.49	.51	.52	.53	.54	.55	.55	.55	.55	.54	.53	.52	.51	.50	.48		
	585	612	637	659	678	694	709	718	724	726	726	722	715	706	693	677	658	636		
1300	.43	.45	.47	.49	.51	.52	.53	.54	.54	.55	.55	.54	.54	.53	.52	.51	.49	.48		
	581	609	634	656	675	690	705	715	720	723	723	719	713	703	690	674	655	633		
15	.43	.45	.47	.49	.50	.52	.53	.54	.54	.54	.54	.54	.54	.53	.52	.51	.49	.47		
	577	604	629	651	670	686	701	710	716	719	719	715	709	699	686	670	651	629		
30	.42	.45	.47	.48	.50	.51	.52	.53	.54	.54	.54	.54	.53	.52	.51	.50	.49	.47		
	571	599	624	646	665	681	696	706	712	715	714	711	704	694	682	666	647	625		
45	.42	.44	.46	.48	.49	.51	.52	.53	.53	.54	.54	.53	.53	.52	.51	.50	.48	.47		
	565	593	618	640	659	675	690	700	706	709	709	705	699	683	676	660	641	619		
1400	.41	.44	.46	.47	.49	.50	.51	.52	.53	.53	.53	.53	.52	.52	.51	.49	.48	.46		
	558	586	611	633	652	668	684	693	699	702	702	699	692	683	670	654	635	613		
15	.41	.43	.45	.47	.48	.50	.51	.52	.52	.53	.53	.52	.52	.51	.50	.49	.47	.46		
	550	578	603	625	645	661	676	686	692	695	695	692	685	676	663	647	628	605		
30	.40	.42	.44	.46	.48	.49	.50	.51	.52	.52	.52	.52	.51	.50	.49	.48	.47	.45		
	541	569	594	617	636	652	668	678	684	687	687	684	677	668	655	639	620	597		
45	.40	.42	.44	.45	.47	.48	.50	.50	.51	.51	.51	.51	.51	.50	.49	.48	.46	.44		
	532	560	585	607	627	643	659	669	675	679	679	675	669	659	646	630	611	589		

MAY-AUG 80 N TABLE B-1 SOLAR PARAMETERS COS Z *** SIGNIFIES COS Z = 1.
X0 (W/M**2.) ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					JUL					AUG								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1500	.39	.41	.43	.45	.46	.48	.49	.50	.50	.51	.51	.50	.50	.49	.48	.47	.45	.44	.41	.39	.37	.34	.31	.28
	521	550	575	597	617	634	650	659	666	669	669	666	660	650	637	621	602	579	548	520	488	454	417	378
15	.38	.40	.42	.44	.46	.47	.48	.49	.49	.50	.50	.50	639	649	656	659	659	656	.40	.38	.35	.33	.30	.27
	511	539	564	587	607	623	639	649	656	659	659	656	650	640	627	611	592	569	538	509	478	443	406	367
30	.37	.39	.41	.43	.45	.46	.47	.48	.49	.49	.49	.49	628	638	645	648	649	645	.40	.37	.35	.32	.29	.27
	499	527	553	576	596	612	628	638	645	648	649	645	639	629	616	600	581	558	527	493	466	432	395	356
45	.36	.38	.40	.42	.44	.45	.46	.47	.48	.48	.48	.48	617	627	634	637	637	634	.39	.37	.34	.31	.29	.26
	487	515	541	564	584	601	617	627	634	637	637	634	628	618	600	589	570	547	516	487	455	420	383	343
1600	.35	.38	.40	.41	.43	.44	.46	.46	.47	.47	.47	.47	605	615	622	626	626	623	.38	.36	.33	.30	.28	.25
	474	503	529	552	572	589	605	615	622	626	626	623	616	607	594	577	558	535	504	474	442	407	370	331
15	.34	.37	.39	.40	.42	.43	.45	.45	.46	.46	.46	.46	593	603	610	613	614	611	.37	.35	.32	.30	.27	.24
	461	490	516	539	559	576	593	603	610	613	614	611	604	594	581	565	545	523	491	462	429	394	357	317
30	.33	.36	.38	.39	.41	.42	.44	.44	.45	.45	.45	.45	580	590	597	601	601	598	.36	.34	.31	.29	.26	.23
	448	477	503	526	546	563	580	590	597	601	601	598	592	582	569	552	533	510	478	449	416	381	344	304
45	.32	.35	.37	.38	.40	.41	.43	.44	.44	.44	.44	.44	567	577	584	588	588	585	.35	.33	.30	.27	.25	.22
	434	463	489	512	533	550	567	577	584	588	588	585	579	569	556	539	519	496	465	435	403	367	330	290
1700	.31	.33	.36	.37	.39	.40	.42	.43	.43	.43	.43	.43	553	564	571	575	575	572	.34	.32	.29	.26	.24	.21
	420	449	475	499	519	537	553	564	571	575	575	572	566	556	543	526	506	483	451	421	389	353	315	275
15	.30	.32	.34	.36	.38	.39	.41	.41	.42	.42	.42	.42	540	550	558	561	562	559	.33	.31	.28	.25	.22	.19
	405	435	461	485	505	523	540	550	558	561	562	559	552	542	529	512	492	469	437	407	374	339	301	261
30	.29	.31	.33	.35	.37	.38	.40	.40	.41	.41	.41	.41	526	537	544	548	548	545	.32	.30	.27	.24	.21	.18
	391	420	447	471	491	509	526	537	544	548	548	545	539	529	515	498	478	455	423	393	360	324	286	246
45	.28	.30	.32	.34	.36	.37	.39	.39	.40	.40	.40	.40	512	523	530	534	534	531	.31	.28	.26	.23	.20	.17
	376	406	432	456	477	495	512	523	530	534	534	531	525	515	501	485	464	441	409	378	345	309	271	231

MAY-AUG 80 N TABLE B-1 SOLAR PARAMETERS COS 2 *** SIGNIFIES COS 2 *1.
 XO (W/M*2.) ADD 1000 TO VALUES PRECEDED BY *

INST	MAY					JUN					JUL					AUG								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1800	.27	.29	.31	.33	.35	.36	.38	.38	.39	.39	.39	.39	.39	.38	.37	.36	.34	.32	.30	.27	.25	.22	.19	.16
	362	391	418	442	463	481	498	509	516	520	521	518	511	501	487	470	450	427	394	364	331	295	256	216
15	.26	.28	.30	.32	.34	.35	.36	.37	.38	.38	.38	.38	.38	.37	.36	.34	.33	.31	.29	.26	.24	.21	.18	.15
	347	377	404	428	449	467	484	495	502	506	507	504	497	487	473	456	436	412	380	349	316	280	241	201
30	.25	.27	.29	.31	.33	.34	.35	.36	.37	.37	.37	.37	.37	.36	.35	.33	.32	.30	.27	.25	.23	.20	.17	.14
	332	362	389	414	435	453	470	481	489	493	493	490	483	473	459	442	422	398	365	335	301	265	226	186
45	.24	.26	.28	.30	.32	.33	.34	.35	.36	.36	.36	.36	.36	.35	.34	.32	.31	.29	.26	.24	.22	.19	.16	.13
	318	348	375	399	421	439	457	467	475	479	479	476	470	459	446	428	408	384	351	320	287	250	212	171
1900	.23	.25	.27	.29	.31	.32	.33	.34	.35	.35	.35	.35	.35	.34	.34	.33	.31	.28	.25	.23	.20	.18	.15	.12
	304	334	361	386	407	425	443	454	461	465	466	463	456	446	432	415	394	370	337	306	272	236	197	156
15	.22	.24	.26	.28	.30	.31	.32	.33	.34	.34	.34	.34	.34	.33	.33	.32	.30	.27	.24	.22	.19	.17	.14	.11
	290	320	347	372	394	412	430	441	448	452	453	449	443	432	418	401	380	356	323	292	258	222	183	142
30	.21	.23	.25	.27	.29	.30	.31	.32	.33	.33	.33	.33	.33	.32	.32	.31	.29	.26	.23	.21	.18	.16	.13	.10
	276	306	334	359	380	399	417	428	435	439	440	436	430	419	405	388	367	343	309	278	244	208	169	127
45	.20	.22	.24	.26	.28	.29	.30	.31	.32	.32	.32	.32	.32	.31	.30	.28	.27	.25	.22	.20	.17	.15	.12	.09
	263	293	321	346	368	386	404	415	423	427	427	424	417	406	392	375	354	329	296	265	231	194	155	114
2000	.19	.21	.23	.25	.27	.28	.30	.30	.31	.31	.31	.31	.31	.30	.29	.27	.26	.24	.21	.19	.16	.14	.11	.08
	250	280	308	333	355	374	392	403	410	414	415	411	405	394	380	362	341	317	283	252	218	181	142	100
15	.18	.20	.22	.24	.26	.27	.29	.30	.30	.30	.30	.30	.30	.29	.28	.26	.25	.23	.20	.19	.15	.13	.10	.07
	237	268	298	321	343	362	380	391	399	403	403	400	393	382	368	350	329	304	271	239	205	168	129	088
30	.17	.19	.21	.23	.25	.26	.28	.29	.29	.30	.30	.29	.29	.28	.27	.26	.24	.22	.19	.17	.14	.12	.09	.06
	226	256	285	310	332	351	369	380	387	391	392	388	381	370	356	338	317	292	259	227	193	156	117	075
45	.16	.18	.20	.22	.24	.26	.27	.28	.28	.29	.29	.29	.28	.27	.26	.25	.23	.21	.19	.16	.14	.11	.08	.05
	214	245	274	299	321	340	358	369	377	381	381	377	370	360	345	327	306	281	247	216	181	144	105	064

TABLE B-1 SOLAR PARAMETERS COS 2
 MAY-AUG 80 N
 *** SIGNIFIES COS 2 = 1.
 ADD 1000 TO VALUES PRECEDED BY *

MST	DATE																							
	MAY					JUN					JUL					AUG								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
2100	.15	.18	.20	.22	.23	.25	.26	.27	.28	.28	.28	.28	.27	.26	.25	.24	.22	.20	.18	.15	.13	.10	.07	.04
	204	235	263	289	311	330	348	359	367	370	371	367	360	349	335	317	295	270	236	205	170	133	094	053
15	.14	.17	.19	.21	.23	.24	.25	.26	.27	.27	.27	.27	.27	.26	.25	.23	.22	.20	.17	.15	.12	.09	.06	.03
	194	225	254	279	301	320	338	350	357	361	361	358	350	339	325	307	285	260	226	195	160	123	084	042
30	.14	.16	.18	.20	.22	.23	.25	.26	.26	.27	.27	.26	.26	.25	.24	.22	.21	.19	.16	.14	.11	.09	.06	.02
	185	216	245	270	292	311	330	341	348	352	352	349	341	330	316	298	276	251	217	185	151	113	074	033
45	.13	.16	.18	.20	.21	.23	.24	.25	.26	.26	.26	.26	.25	.24	.23	.22	.20	.18	.16	.13	.11	.08	.05	.02
	176	208	236	262	284	303	321	333	340	344	344	340	333	322	307	289	267	242	208	176	142	105	065	024
2200	.13	.15	.17	.19	.21	.22	.24	.25	.25	.25	.25	.25	.25	.24	.23	.21	.20	.18	.15	.13	.10	.07	.04	.01
	169	200	229	255	277	296	314	325	333	337	337	333	326	314	300	281	259	234	200	163	134	097	057	016
15	.12	.14	.17	.19	.20	.22	.23	.24	.25	.25	.25	.25	.24	.23	.22	.21	.19	.17	.15	.12	.10	.07	.04	.01
	162	194	222	248	271	290	308	319	326	330	330	326	319	308	293	274	252	227	193	161	127	089	050	009
30	.12	.14	.16	.18	.20	.21	.23	.24	.24	.25	.25	.24	.24	.23	.22	.20	.19	.17	.14	.12	.09	.06	.03	.00
	156	188	217	242	265	284	302	313	321	324	324	320	313	301	287	268	246	221	187	155	120	083	044	002
45	.11	.14	.16	.18	.20	.21	.22	.23	.24	.24	.24	.24	.23	.22	.21	.20	.18	.16	.14	.11	.09	.06	.03	.00
	151	183	212	238	260	279	297	308	316	319	319	315	308	296	281	263	241	216	181	149	115	078	038	000
2300	.11	.13	.16	.18	.19	.21	.22	.23	.24	.24	.24	.24	.23	.22	.21	.20	.18	.16	.13	.11	.08	.06	.03	.00
	147	179	208	234	256	275	293	304	312	315	315	311	303	292	277	258	236	211	177	145	110	073	034	000
15	.11	.13	.15	.17	.19	.20	.22	.23	.23	.24	.24	.23	.23	.22	.21	.19	.18	.16	.13	.11	.08	.05	.02	.00
	144	176	205	231	253	272	290	301	309	312	312	308	300	288	273	255	233	207	173	141	107	070	030	000
30	.11	.13	.15	.17	.19	.20	.22	.23	.23	.23	.23	.23	.23	.22	.20	.19	.17	.15	.13	.10	.08	.05	.02	.00
	142	174	203	229	251	270	288	299	306	310	309	305	297	286	271	252	230	205	170	138	104	067	028	000
45	.10	.13	.15	.17	.19	.20	.22	.22	.23	.23	.23	.23	.22	.22	.20	.19	.17	.15	.13	.10	.08	.05	.02	.00
	141	173	202	227	250	269	287	298	305	308	308	304	290	284	269	250	228	203	168	137	102	065	026	000

TABLE B-1 SOLAR PARAMETERS COS 2 *** SIGNIFIES COS 2 =1.
MAY-AUG 80 N X0 (W/M**2.) ADD 1000 TO VALUES PRECEDED BY *

MST	DATE																							
	SEP					OCT					NOV					DEC								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
0300	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	002	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	013	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	025	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	038	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
0400	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	051	009	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	064	022	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	078	036	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	092	051	008	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
0500	.08	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	107	066	023	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.09	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	122	080	038	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.10	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	137	096	053	010	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.11	.08	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	152	111	069	026	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000

SEP-DEC 80 N TABLE B-1 SOLAR PARAMETERS COS Z *** SIGNIFIES COS Z = 1.
 X0 (W/M**2.) ADD 1000 TO VALUES PRECEDED BY *

MST	SEP						OCT						DATE						NOV						DEC					
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
0600	.12	.09	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	167	126	084	041	000	000																								
15	.14	.11	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	182	141	099	057	013	000																								
30	.15	.12	.09	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	197	157	115	072	028	000																								
45	.16	.13	.10	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	212	172	130	087	044	000																								
0700	.17	.14	.11	.08	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	227	187	145	102	059	015																								
15	.18	.15	.12	.09	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	242	201	159	117	073	029																								
30	.19	.16	.13	.10	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	256	215	174	131	087	044																								
45	.20	.17	.14	.11	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	270	229	188	145	101	057																								
0800	.21	.18	.15	.12	.08	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	283	243	201	158	115	071																								
15	.22	.19	.16	.13	.09	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	296	255	214	171	128	083																								
30	.23	.20	.17	.14	.10	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	308	268	226	183	140	096																								
45	.24	.21	.18	.14	.11	.08	.05	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	320	279	238	195	151	107																								

SEP-DEC 80 N TABLE B-1 SOLAR PARAMETERS CDS Z *** SIGNIFIES COS Z =1.
 XO (W/M**2.) ADD 1000 TO VALUES PRECEDED BY *

MST	DATE																							
	SEP					OCT					NOV					DEC								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
0900	.25	.22	.18	.15	.12	.09	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	331	290	249	206	162	118	074	029	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.25	.22	.19	.16	.13	.09	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	341	301	259	216	172	128	084	039	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.26	.23	.20	.17	.13	.10	.07	.04	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	351	310	269	226	182	137	093	048	004	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.27	.24	.20	.17	.14	.11	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	360	319	277	234	190	146	101	056	012	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
1000	.27	.24	.21	.18	.15	.11	.08	.05	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	368	327	285	242	198	153	109	064	019	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.28	.25	.22	.18	.15	.12	.08	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	375	334	292	249	205	160	115	070	026	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.28	.25	.22	.19	.16	.12	.09	.06	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	381	340	298	255	211	166	121	076	031	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.29	.26	.22	.19	.16	.13	.09	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	386	345	303	260	216	171	126	081	036	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
1100	.29	.26	.23	.19	.16	.13	.09	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	390	350	307	264	219	175	129	084	039	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.29	.26	.23	.20	.16	.13	.10	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	394	353	310	267	222	177	132	087	042	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.29	.26	.23	.20	.17	.13	.10	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	396	355	313	269	224	179	134	088	044	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.30	.26	.23	.20	.17	.13	.10	.07	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	398	356	314	270	225	180	134	089	044	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000

SEP-DEC 80 N TABLE B-1 SOLAR PARAMETERS COS Z XO (W/M**2.) *** SIGNIFIES COS Z =1. ADD 1000 TO VALUES PRECEDED BY *

MST	DATE																							
	SEP					OCT					NOV					DEC								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1500	.24	.21	.18	.14	.11	.08	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	329	286	242	196	150	103	056	009	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.24	.20	.17	.14	.10	.07	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	318	275	230	184	138	091	044	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.23	.19	.16	.13	.09	.06	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	306	263	218	172	126	079	032	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.22	.19	.15	.12	.08	.05	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	294	250	205	159	113	066	018	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
1600	.21	.18	.14	.11	.07	.04	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	281	237	192	146	099	052	005	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.20	.17	.13	.10	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	267	223	178	132	085	038	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.19	.16	.12	.09	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	253	209	164	118	071	024	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.18	.14	.11	.08	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	239	195	150	103	056	009	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
1700	.17	.13	.10	.07	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	224	180	135	088	041	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.16	.12	.09	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	210	165	120	073	026	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.14	.11	.08	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	195	150	105	058	011	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.13	.10	.07	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	179	135	089	043	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000

*** SIGNIFIES COS 2 =1.
ADD 1000 TO VALUES PRECEDED BY *

TABLE B-1 SOLAR PARAMETERS COS 2
XO (W//H**2.)

SEP-DEC 80 N

MST	SEP					OCT					DATE					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
	DATE																								
1800	.12	.09	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	164	120	074	027	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
15	.11	.08	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	149	104	059	012	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
30	.10	.07	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	134	089	043	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
45	.09	.06	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	119	074	028	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
1900	.08	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	104	059	013	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
15	.07	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	090	045	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
30	.06	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	075	031	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
45	.05	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	062	017	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
2000	.04	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	048	003	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
15	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	035	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
30	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	023	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
45	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	011	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	

*** SIGNIFIES COS Z =1.
ADD 1000 TO VALUES PRECEDED BY *

SOLAR PARAMETERS
COS Z
XO (W/M**2.)

TABLE B-1

SEP-DEC 80 M

MST	JAN							FEB							DATE							MAR							APR						
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30				
0400	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00				
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01				
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.04	.050				
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.04	.07	.090				
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.04	.07	.10				
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.08	.10	.13				
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.11	.13	.16				
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	.17	.19				
0600	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.17	.20	.22				
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.23	.25	.25				
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.27	.29	.32				
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.31	.33	.36				

*** SIGNIFIES COS 2 =1.
ADD 1000 TO VALUES PRECEDED BY *

SOLAR PARAMETERS COS 2
XO (W/M**2.)

TABLL B-1 60 N JAN-APR

MST	DATE																		
	JAN				FEB				MAR				APR						
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1000	.06 .06 .07 .08 .09 .11 .13 079 085 096 112 133 157 185	.16 .18 .21 .24 .27 224 259 296 336 377	.32 .35 .38 .42 .45 .48 445 489 532 574 616 657	.51 .54 .57 .59 .62 .64 703 740 774 806 835 862										.51 .54 .57 .59 .62 .64 703 740 774 806 835 862					
15	.07 .08 .08 .10 .11 .13 .15 099 106 118 134 155 180 208	.18 .20 .23 .26 .29 247 282 320 360 401	.34 .37 .40 .43 .46 .49 469 512 555 597 639 679	.53 .55 .58 .61 .63 .65 725 761 795 826 855 882										.53 .55 .58 .61 .63 .65 725 761 795 826 855 882					
30	.08 .09 .10 .11 .12 .14 .16 117 124 137 154 175 200 229	.19 .22 .24 .27 .30 268 303 341 381 422	.35 .38 .42 .45 .48 .51 490 532 575 617 658 698	.54 .57 .60 .62 .65 .67 744 779 813 844 873 899										.54 .57 .60 .62 .65 .67 744 779 813 844 873 899					
45	.09 .10 .11 .12 .14 .15 .18 133 140 153 170 192 217 247	.20 .23 .26 .29 .32 286 321 359 399 440	.37 .40 .43 .46 .49 .52 504 550 593 635 675 715	.56 .59 .61 .63 .66 .68 760 795 828 859 888 913										.56 .59 .61 .63 .66 .68 760 795 828 859 888 913					
1100	.10 .11 .12 .13 .15 .16 .19 146 153 167 185 206 232 262	.21 .24 .27 .30 .33 301 337 375 415 456	.38 .41 .44 .47 .50 .53 523 566 608 649 690 729	.57 .59 .62 .64 .67 .69 773 809 841 872 900 925										.57 .59 .62 .64 .67 .69 773 809 841 872 900 925					
15	.11 .12 .13 .14 .15 .17 .19 156 164 178 196 218 244 274	.22 .25 .28 .31 .34 314 350 388 427 469	.39 .42 .45 .48 .51 .54 530 578 620 661 701 740	.57 .60 .63 .65 .67 .69 784 819 851 881 909 935										.57 .60 .63 .65 .67 .69 784 819 851 881 909 935					
30	.12 .12 .13 .15 .16 .18 .20 164 172 186 205 227 254 284	.23 .26 .28 .31 .34 323 360 398 437 478	.39 .42 .45 .49 .52 .55 545 587 629 670 710 748	.58 .61 .63 .66 .68 .70 792 827 858 888 916 941										.58 .61 .63 .66 .68 .70 792 827 858 888 916 941					
45	.12 .13 .14 .15 .17 .18 .21 169 177 192 211 234 260 290	.24 .26 .29 .32 .35 330 367 405 445 486	.40 .43 .46 .49 .52 .55 552 594 635 676 715 753	.58 .61 .63 .66 .68 .70 797 831 863 892 920 945										.58 .61 .63 .66 .68 .70 797 831 863 892 920 945					
1200	.12 .13 .14 .15 .17 .19 .21 171 179 194 214 237 264 294	.24 .26 .29 .32 .35 335 371 409 449 490	.40 .43 .46 .49 .52 .55 550 598 639 679 718 756	.58 .61 .63 .66 .68 .70 799 832 864 894 921 945										.58 .61 .63 .66 .68 .70 799 832 864 894 921 945					
15	.12 .13 .14 .15 .17 .19 .21 170 179 194 214 238 265 295	.24 .27 .29 .32 .35 336 372 410 450 491	.40 .43 .46 .49 .52 .55 557 598 639 679 718 755	.58 .61 .63 .66 .68 .70 798 831 863 892 919 944										.58 .61 .63 .66 .68 .70 798 831 863 892 919 944					
30	.12 .12 .14 .15 .17 .19 .21 166 176 191 211 235 263 294	.24 .26 .29 .32 .35 334 371 409 448 489	.40 .43 .46 .49 .52 .55 555 596 636 676 715 752	.58 .61 .63 .65 .68 .70 794 827 858 887 914 939										.58 .61 .63 .65 .68 .70 794 827 858 887 914 939					
45	.11 .12 .13 .15 .16 .18 .21 160 170 186 206 230 258 289	.23 .26 .29 .32 .35 330 366 404 444 484	.40 .43 .46 .49 .52 .54 550 591 631 670 709 745	.58 .60 .63 .65 .67 .69 787 820 851 880 907 931										.58 .60 .63 .65 .67 .69 787 820 851 880 907 931					

JAN-APR 60 N TABLE B-1 SOLAR PARAMETERS COS Z *** SIGNIFIES COS Z = 1.
X0 (W/M*2.) ADD 1000 TO VALUES PRECEDED BY .

MST	JAN					FEB					MAR					APR				
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	30
1300	.11	.11	.13	.14	.16	.18	.20	.23	.26	.28	.31	.34	.39	.42	.45	.48	.51	.54	.57	.53
151	161	177	198	222	250	281		322	359	397	436	477	542	582	622	662	700	736	778	811
15	.10	.11	.12	.13	.15	.17	.19	.22	.25	.28	.30	.33	.38	.41	.44	.47	.50	.53	.56	.53
139	149	166	187	212	240	271		312	348	387	426	466	531	571	611	650	688	724	765	793
30	.09	.10	.11	.12	.14	.16	.18	.21	.24	.27	.30	.32	.37	.40	.43	.46	.49	.52	.55	.57
125	135	152	173	198	227	258		299	335	373	413	453	517	557	597	636	673	709	750	783
45	.08	.08	.10	.11	.13	.15	.17	.20	.23	.26	.28	.31	.36	.39	.42	.45	.48	.50	.54	.55
108	119	136	157	182	211	242		283	320	358	397	437	501	541	580	618	656	691	732	765
1400	.06	.07	.08	.10	.12	.14	.16	.19	.21	.24	.27	.30	.35	.38	.41	.43	.46	.49	.52	.55
088	099	117	138	164	192	224		265	301	339	378	418	482	521	560	598	635	671	712	741
15	.05	.06	.07	.08	.10	.12	.14	.17	.20	.23	.26	.28	.33	.36	.39	.42	.45	.47	.50	.53
066	077	095	117	143	171	203		244	280	318	357	396	460	499	538	576	613	648	689	721
30	.03	.04	.05	.07	.08	.11	.13	.16	.18	.21	.24	.27	.31	.34	.37	.40	.43	.45	.49	.51
042	053	071	093	119	148	179		220	256	294	333	372	435	475	513	551	588	623	663	695
45	.01	.02	.03	.05	.07	.09	.11	.14	.16	.19	.22	.25	.29	.32	.35	.38	.41	.43	.46	.47
015	027	045	067	093	122	153		194	230	268	306	346	409	448	486	524	560	595	636	667
1500	.00	.00	.01	.03	.05	.07	.09	.12	.14	.17	.20	.23	.27	.30	.33	.36	.39	.41	.44	.47
000	000	017	039	065	094	125		166	202	239	278	317	379	418	456	494	530	565	606	637
15	.00	.00	.00	.01	.02	.05	.07	.10	.12	.15	.18	.20	.25	.28	.31	.34	.36	.39	.42	.44
000	000	000	009	035	063	095		136	171	209	247	286	348	387	425	462	498	533	573	605
30	.00	.00	.00	.00	.02	.04	.06	.07	.10	.13	.15	.18	.23	.25	.28	.31	.34	.36	.39	.42
000	000	000	000	002	031	063		103	139	176	214	253	315	353	391	428	464	499	539	571
45	.00	.00	.00	.00	.00	.02	.04	.05	.07	.10	.13	.16	.20	.23	.26	.28	.31	.34	.37	.39
000	000	000	000	000	000	000	0028	069	104	141	179	218	279	318	355	392	428	463	503	535

JAN-APR 60 N TABLE 8-1 SOLAR PARAMETERS COS Z *** SIGNIFIES COS 2 = 1.
 ADD 1000 TO VALUES PRECEDED BY *

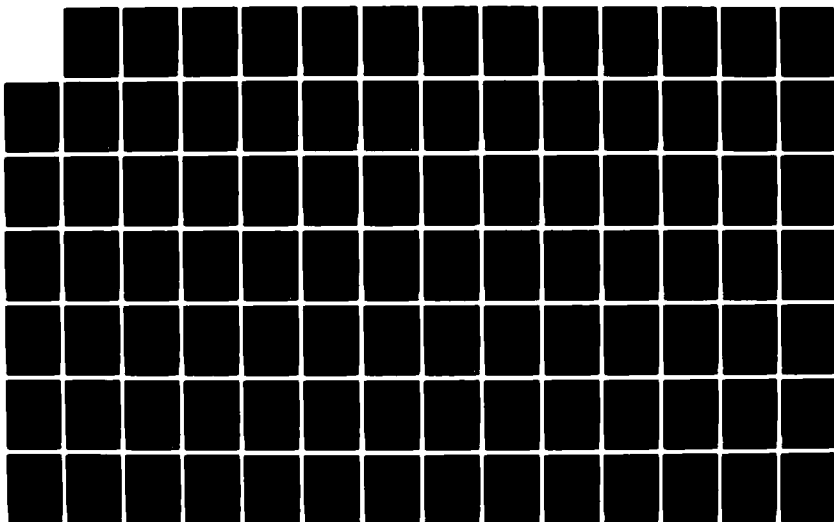
AD-A148 096

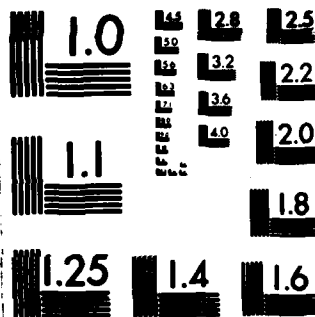
OPERATIONAL TACTICAL DECISION AID (OTDA) FOR INFRARED
(8-12 MICROMETERS)...(U) SYSTEMS AND APPLIED SCIENCES
CORP VIENNA VA D B HODGES 30 SEP 83 SCIENTIFIC-8-VOL-3
AFGL-TR-83-0334-VOL-3 F19628-81-C-0042 F/G 4/1

3/4

UNCLASSIFIED

NL





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

MST

MST	DATE																															
	JAN						FEB					MAR					APR															
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1900	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000

JAN-APR 60 N TABLE 8-1 SOLAR PARAMETERS COS 2
XO (W/M-2.)

*** SIGNIFIES COS 2 =1.
ADD 1000 TO VALUES PRECEDED BY .

MST	MAY					JUN					JUL					AUG								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
0500	.12	.14	.16	.18	.19	.20	.21	.22	.22	.22	.22	.22	.21	.20	.19	.18	.16	.14	.12	.10	.08	.06	.04	.01
	163	192	217	239	257	272	285	292	296	296	293	286	277	264	249	232	212	190	161	134	107	077	047	015
15	.15	.17	.19	.21	.22	.23	.24	.25	.25	.25	.25	.25	.24	.23	.22	.20	.19	.17	.15	.13	.11	.09	.07	.04
	204	233	258	279	297	312	324	331	334	334	331	325	315	303	288	271	251	230	201	175	148	119	089	058
30	.18	.20	.22	.24	.25	.26	.27	.28	.28	.28	.28	.28	.27	.26	.25	.23	.22	.20	.18	.15	.14	.12	.10	.08
	246	274	299	320	337	352	364	371	374	374	370	364	355	343	328	311	292	270	242	216	189	161	131	100
45	.21	.24	.25	.27	.28	.29	.30	.31	.31	.31	.31	.31	.30	.29	.28	.27	.25	.23	.21	.19	.17	.15	.13	.11
	286	316	340	361	378	392	404	410	413	413	410	404	394	382	368	351	332	311	283	253	231	203	174	144
0600	.25	.27	.29	.30	.31	.33	.33	.34	.34	.34	.34	.34	.33	.32	.31	.30	.28	.27	.24	.23	.21	.18	.16	.14
	331	358	382	402	419	432	444	450	453	453	450	443	434	422	408	392	373	352	325	300	274	246	217	187
15	.28	.30	.32	.33	.35	.36	.36	.37	.37	.37	.37	.37	.36	.35	.34	.33	.31	.30	.28	.26	.24	.22	.19	.17
	373	400	423	443	460	473	484	490	493	493	489	483	474	463	448	432	414	393	366	342	316	289	260	230
30	.31	.33	.35	.36	.38	.39	.39	.40	.40	.40	.40	.40	.39	.38	.37	.36	.34	.33	.31	.29	.27	.25	.23	.20
	415	441	464	484	500	513	524	530	533	532	529	523	514	503	489	473	454	434	408	384	358	331	303	274
45	.34	.36	.38	.39	.41	.42	.42	.43	.43	.43	.43	.43	.42	.41	.40	.39	.37	.36	.34	.32	.30	.28	.26	.24
	457	483	505	524	540	553	564	570	572	572	568	562	553	542	529	513	495	475	449	425	400	373	346	316
0700	.37	.39	.41	.42	.44	.45	.45	.46	.46	.46	.46	.45	.45	.44	.43	.42	.40	.39	.37	.35	.33	.31	.29	.27
	498	523	545	564	580	592	603	609	611	610	607	601	592	581	568	552	535	515	490	466	441	415	388	359
15	.40	.42	.44	.45	.46	.47	.48	.49	.49	.49	.49	.48	.48	.47	.46	.45	.43	.42	.40	.39	.36	.34	.32	.30
	538	563	585	604	619	631	642	647	649	649	645	639	631	620	607	592	574	555	530	507	482	456	429	400
30	.43	.45	.47	.48	.49	.50	.51	.52	.52	.52	.52	.51	.51	.50	.49	.48	.46	.45	.43	.41	.39	.37	.35	.33
	578	602	624	642	657	669	679	684	686	686	683	677	669	658	645	630	613	594	569	545	522	496	469	441
45	.46	.48	.49	.51	.52	.53	.54	.54	.55	.55	.54	.54	.53	.53	.52	.50	.49	.48	.46	.44	.42	.40	.38	.36
	616	640	661	679	694	706	716	721	723	722	719	713	705	695	682	667	651	632	607	585	561	536	509	481

MAY-AUG 60 N TABLE B-1 SOLAR PARAMETERS COS Z *** SIGNIFIES COS Z = 1.
 ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					JUL					AUG								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30						
0800	.49	.50	.52	.54	.55	.56	.57	.57	.57	.57	.57	.57	.56	.55	.54	.53	.52	.50	.48	.47	.45	.43	.41	.39
	653	677	697	715	730	741	751	756	758	757	754	749	741	730	718	704	687	669	644	622	599	574	547	519
15	.51	.53	.55	.56	.57	.58	.59	.60	.60	.60	.60	.59	.59	.58	.57	.56	.54	.53	.51	.49	.48	.46	.44	.41
	689	712	732	750	764	775	785	790	792	791	788	783	775	765	753	739	722	704	680	659	635	610	584	556
30	.54	.56	.57	.59	.60	.61	.62	.62	.62	.62	.62	.62	.61	.60	.59	.58	.57	.56	.54	.52	.50	.48	.46	.44
	723	746	766	783	797	808	817	822	824	824	821	816	808	798	786	772	756	738	715	693	670	645	619	591
45	.56	.58	.60	.61	.62	.63	.64	.64	.65	.65	.64	.64	.63	.63	.62	.61	.59	.58	.56	.55	.53	.51	.49	.47
	755	778	797	814	828	839	848	853	855	855	852	847	839	830	818	804	789	771	748	725	703	679	653	625
0900	.58	.60	.62	.63	.64	.65	.66	.66	.67	.67	.67	.66	.66	.65	.64	.63	.62	.60	.59	.57	.55	.53	.51	.49
	785	808	827	844	857	868	877	882	884	884	881	876	869	859	848	835	819	802	779	758	735	710	684	657
15	.61	.62	.64	.65	.66	.67	.68	.69	.69	.69	.69	.68	.68	.67	.66	.65	.64	.63	.61	.59	.57	.55	.53	.51
	814	836	855	871	885	895	905	909	912	911	909	904	897	888	876	863	848	831	808	787	764	740	714	686
30	.62	.64	.66	.67	.68	.69	.70	.70	.71	.71	.71	.70	.70	.69	.68	.67	.66	.65	.63	.61	.59	.57	.55	.53
	840	862	881	897	910	921	930	935	937	937	934	930	923	914	903	890	875	858	835	814	792	768	742	714
45	.64	.66	.68	.69	.70	.71	.72	.72	.72	.72	.72	.72	.72	.71	.70	.69	.68	.66	.65	.63	.61	.59	.57	.55
	864	886	904	920	933	944	953	958	960	960	958	953	946	938	927	914	899	883	860	840	817	793	767	739
1000	.66	.68	.69	.70	.72	.72	.73	.74	.74	.74	.74	.74	.73	.73	.72	.71	.70	.68	.66	.65	.63	.61	.59	.57
	886	907	926	942	955	965	974	979	981	981	979	975	968	960	949	936	922	905	883	863	840	816	790	762
15	.67	.69	.71	.72	.73	.74	.75	.75	.75	.76	.75	.75	.75	.74	.73	.72	.71	.70	.68	.65	.65	.63	.60	.58
	905	926	945	960	973	984	993	998	000	000	998	994	988	979	969	957	942	926	904	883	861	837	811	783
30	.69	.70	.72	.73	.74	.75	.76	.76	.77	.77	.77	.76	.76	.75	.74	.74	.72	.71	.69	.63	.65	.64	.62	.60
	922	943	961	977	990	000	009	014	017	017	015	011	005	997	986	974	960	944	922	902	879	855	829	801
45	.70	.71	.73	.74	.75	.76	.77	.77	.78	.78	.78	.77	.77	.76	.76	.75	.74	.72	.71	.69	.67	.65	.63	.61
	937	957	975	991	003	014	023	028	031	031	029	026	020	012	002	990	976	960	938	917	895	871	845	816

*** SIGNIFIES COS 2 =1.
ADD 1000 TO VALUES PRECEDED BY *

TABLE B-1 SOLAR PARAMETERS COS 2
X0 (W/M**2.)

MAY-AUG 60 N

MST	MAY					JUN					JUL					AUG								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30						
1100	.71	.72	.74	.75	.76	.77	.78	.78	.79	.79	.79	.78	.79	.77	.77	.76	.75	.73	.71	.70	.68	.66	.64	.62
948	969	987	002	015	025		+034	+039	+042	+043	+041	+038	+032	+024	+014	+002	989	973	951	930	908	884	857	829
15	.71	.73	.74	.76	.77	.78	.79	.79	.79	.79	.79	.79	.79	.78	.77	.76	.75	.74	.72	.71	.69	.67	.65	.62
957	978	995	011	023	034		+043	+048	+051	+052	+051	+047	+042	+034	+024	+013	999	983	961	941	919	894	868	839
30	.72	.73	.75	.76	.77	.78	.79	.79	.80	.80	.80	.80	.79	.79	.78	.77	.76	.75	.73	.71	.69	.67	.65	.63
964	984	001	017	029	040		+049	+055	+058	+059	+058	+054	+049	+042	+032	+020	007	991	969	949	926	902	875	846
45	.72	.74	.75	.76	.77	.78	.79	.80	.80	.80	.80	.80	.80	.79	.78	.77	.76	.75	.73	.72	.70	.68	.66	.63
967	987	005	020	033	043		+053	+058	+062	+063	+062	+059	+054	+046	+037	+025	012	996	974	954	931	907	880	851
1200	.72	.74	.75	.76	.78	.78	.79	.80	.80	.80	.80	.80	.80	.79	.78	.78	.76	.75	.73	.72	.70	.68	.66	.63
968	988	005	021	034	044		+054	+060	+063	+064	+064	+061	+056	+049	+039	+028	014	999	977	955	934	909	881	852
15	.72	.73	.75	.76	.77	.78	.79	.80	.80	.80	.80	.80	.80	.79	.78	.78	.76	.75	.73	.72	.70	.68	.66	.63
966	986	003	019	032	042		+052	+058	+062	+063	+063	+060	+055	+048	+039	+028	014	998	977	955	933	908	880	851
30	.71	.73	.75	.76	.77	.78	.79	.79	.80	.80	.80	.80	.79	.79	.78	.77	.76	.75	.73	.72	.70	.68	.65	.63
961	981	999	014	027	038		+048	+054	+058	+060	+059	+057	+052	+045	+036	+025	011	996	974	953	930	904	877	847
45	.71	.73	.74	.75	.76	.77	.78	.79	.79	.80	.80	.79	.78	.79	.78	.77	.76	.75	.73	.71	.69	.67	.65	.63
953	973	991	007	020	031		+041	+047	+051	+053	+053	+051	+046	+039	+031	+019	006	990	968	947	924	898	870	840
1300	.70	.72	.73	.75	.76	.77	.78	.78	.79	.79	.79	.79	.78	.78	.77	.76	.75	.74	.72	.70	.69	.66	.64	.62
943	963	981	997	010	021		+032	+038	+042	+045	+045	+042	+038	+031	+022	+011	998	982	960	939	915	889	861	830
15	.69	.71	.72	.74	.75	.76	.77	.77	.78	.78	.78	.78	.78	.77	.76	.76	.74	.73	.71	.70	.68	.66	.63	.61
930	950	968	984	998	009		+020	+026	+031	+033	+033	+031	+027	+021	+012	+000	987	971	949	927	903	877	849	818
30	.68	.70	.71	.73	.74	.75	.76	.76	.77	.77	.77	.77	.77	.76	.75	.75	.73	.72	.70	.69	.67	.65	.62	.60
915	935	953	969	983	994		+005	+012	+017	+019	+020	+018	+014	+007	998	987	974	958	935	913	889	863	834	803
45	.67	.68	.70	.71	.72	.73	.74	.75	.75	.76	.76	.76	.75	.75	.74	.73	.72	.71	.69	.67	.65	.63	.61	.58
897	917	935	951	965	977		988	996	000	003	004	002	998	992	983	972	958	942	919	897	873	846	816	785

TABLE B-1 SOLAR PARAMETERS COS Z
 MAY-AUG 60 N X0 (W/M**2.) *** SIGNIFIES COS Z =1.
 ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					JUL					AUG								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1400	.65	.67	.68	.70	.71	.72	.73	.74	.74	.74	.74	.74	.74	.74	.73	.72	.71	.70	.68	.66	.64	.62	.59	.57
	876	897	915	931	946	958	969	977	982	985	985	984	980	973	965	953	940	923	900	878	853	826	796	764
15	.63	.65	.67	.68	.69	.70	.71	.72	.72	.73	.73	.73	.72	.72	.71	.70	.69	.68	.66	.64	.62	.60	.58	.55
	853	874	893	909	923	936	948	955	961	964	965	963	959	953	944	933	919	902	879	857	832	804	774	742
30	.62	.63	.65	.66	.67	.69	.70	.70	.71	.71	.71	.71	.71	.70	.70	.69	.68	.66	.64	.63	.61	.58	.56	.53
	828	849	868	885	899	912	924	932	938	941	942	940	937	930	922	910	896	879	856	833	808	780	749	716
45	.60	.61	.63	.64	.65	.67	.68	.68	.69	.69	.69	.69	.69	.68	.68	.67	.66	.64	.62	.61	.59	.56	.54	.51
	801	822	841	858	873	886	898	906	912	916	917	916	912	906	897	885	871	854	830	807	782	753	722	689
1500	.57	.59	.61	.62	.63	.64	.66	.66	.67	.67	.67	.67	.67	.66	.66	.65	.64	.62	.60	.59	.56	.54	.52	.49
	771	793	812	829	845	858	871	879	885	889	890	889	885	879	870	858	844	827	803	779	753	725	693	659
15	.55	.57	.58	.60	.61	.62	.63	.64	.65	.65	.65	.65	.65	.64	.64	.63	.61	.60	.58	.56	.54	.52	.49	.47
	740	762	781	799	814	828	841	850	856	860	861	860	857	850	841	830	815	798	773	749	723	694	662	628
30	.53	.54	.56	.57	.59	.60	.61	.62	.62	.63	.63	.63	.62	.62	.61	.60	.59	.58	.56	.54	.52	.49	.47	.44
	707	729	749	767	782	796	810	819	825	829	831	830	826	820	811	799	784	767	742	718	691	661	629	594
45	.50	.52	.53	.55	.56	.57	.58	.59	.60	.60	.60	.60	.60	.60	.59	.58	.57	.55	.53	.51	.49	.47	.44	.42
	672	694	715	733	749	763	777	786	793	797	799	798	794	788	779	767	752	734	709	684	657	627	594	559
1600	.47	.49	.51	.52	.54	.55	.56	.57	.57	.58	.58	.58	.58	.57	.56	.55	.54	.53	.51	.49	.47	.44	.42	.39
	636	658	679	697	714	728	743	752	759	763	765	764	761	754	745	733	718	700	674	649	621	591	558	522
15	.44	.46	.48	.49	.51	.52	.53	.54	.55	.55	.55	.55	.55	.54	.54	.53	.51	.50	.48	.45	.44	.41	.39	.36
	598	621	642	661	678	692	707	717	724	728	730	730	726	719	710	698	682	664	638	613	585	554	520	484
30	.42	.43	.45	.47	.48	.49	.50	.51	.52	.52	.52	.52	.52	.52	.51	.50	.49	.47	.45	.43	.41	.39	.36	.33
	559	583	604	623	640	655	670	680	687	692	694	693	690	683	674	661	646	627	600	575	545	515	481	445
45	.39	.40	.42	.44	.45	.46	.48	.48	.49	.49	.50	.50	.49	.49	.48	.47	.46	.44	.42	.40	.38	.36	.33	.30
	520	543	565	584	602	617	633	643	650	655	657	656	653	646	636	624	608	589	562	535	507	475	441	404

*** SIGNIFIES COS 2 =1.
ADD 1000 TO VALUES PRECEDED BY *

SOLAR PARAMETERS
X0 (W/M**2.)

TABLE 8-1
COS 2

60 N
MAY-AUG

MSY

DATE

MAY
5 10 15 20 25 30

JUN

5 10 15 20 25 30

JUL

5 10 15 20 25 30

AUG

5 10 15 20 25 30

1700 .36 .37 .39 .41 .42 .43
479 503 525 545 563 578

15 .33 .34 .36 .38 .39 .40
438 462 484 505 523 539

30 .29 .31 .33 .35 .36 .37
396 420 443 464 482 499

45 .26 .28 .30 .32 .33 .34
353 379 402 423 442 458

1800 .23 .25 .27 .29 .30 .31
311 337 360 382 401 418

15 .20 .22 .24 .26 .27 .28
269 295 319 341 360 377

30 .17 .19 .21 .22 .24 .25
227 253 277 300 320 337

45 .14 .16 .18 .19 .21 .22
185 212 237 259 279 297

1900 .11 .13 .15 .16 .18 .19
144 171 196 219 240 258

15 .08 .10 .12 .14 .15 .17
104 131 157 180 201 219

30 .05 .07 .09 .11 .12 .14
84 092 118 142 163 182

45 .02 .04 .06 .08 .09 .11
826 054 081 105 126 145

.39 .37 .35 .33 .30 .27
522 496 467 435 400 363

.36 .34 .32 .29 .27 .24
482 455 426 393 358 320

.33 .31 .29 .26 .24 .21
441 414 384 351 316 278

.30 .23 .25 .23 .20 .17
400 372 342 309 273 234

.27 .25 .22 .20 .17 .14
358 331 300 266 230 191

.24 .22 .19 .17 .14 .11
317 283 257 223 187 148

.21 .19 .16 .14 .11 .08
275 247 215 181 144 104

.18 .15 .13 .10 .08 .05
234 205 173 139 101 62

.15 .12 .10 .07 .04 .01
193 164 132 97 59 019

.12 .03 .07 .04 .01 .00
153 124 91 56 018 000

.09 .06 .04 .01 .00 .00
114 084 051 .016 000 000

.06 .03 .01 .00 .00 .00
076 045 012 000 000 000

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

SOLAR PARAMETERS
X0 (W/M*2.)

COS Z

MAY-AUG

60 N

TABLE B-1

MST	DATE											
	MAY				JUN				JUL			
	5	10	15	20	25	30	5	10	15	20	25	30
2000	.00 .01 .03 .05 .07 .08	.10 .11 .11 .12 .12 .12	.11 .11 .10 .09 .07 .05	.03 .01 .00 .00 .00 .00	.038 008 000 000 000 000	.00 .02 .00 .00 .00 .00	.00 .02 .00 .00 .00 .00	.00 .02 .00 .00 .00 .00	.00 .02 .00 .00 .00 .00	.00 .02 .00 .00 .00 .00	.00 .02 .00 .00 .00 .00	.00 .02 .00 .00 .00 .00
15	.00 .00 .01 .03 .04 .06	.07 .08 .09 .09 .09 .09	.09 .08 .07 .06 .04 .03	.003 003 000 000 000 000	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00
30	.00 .00 .00 .00 .02 .03	.05 .06 .06 .07 .07 .07	.06 .05 .03 .02 .00 .00	.000 000 000 000 000 000	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00
45	.00 .00 .00 .00 .00 .01	.02 .03 .04 .04 .05 .04	.04 .03 .02 .01 .00 .00	.000 000 000 000 000 000	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00
2100	.00 .00 .00 .00 .00 .00	.00 .01 .02 .02 .02 .02	.02 .01 .00 .00 .00 .00	.000 000 000 000 000 000	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00
15	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.000 000 000 000 000 000	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00
30	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.000 000 000 000 000 000	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00
45	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.000 000 000 000 000 000	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00

TABLE B-1 SOLAR PARAMETERS COS Z
 MAY-AUG 60 N XO (W/M*2.) *** SIGNIFIES COS Z =1. ADD 1000 TO VALUES PRECEDED BY *

MST	DATE																		
	SEP					OCT					NOV					DEC			
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.01	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00
	019	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	062	029	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.08	.05	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	106	073	040	006	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
0600	.11	.09	.06	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	150	117	084	050	016	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.14	.12	.10	.07	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	193	161	128	095	060	025	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.18	.15	.13	.10	.08	.05	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	237	205	172	139	105	070	034	000	000	000	000	000	000	000	000	000	000	000	000
45	.21	.18	.16	.13	.11	.08	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	280	248	216	182	148	113	078	042	006	000	000	000	000	000	000	000	000	000	000
0700	.24	.22	.19	.17	.14	.11	.09	.06	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00
	323	291	259	225	191	156	121	085	049	012	030	000	000	000	000	000	000	000	000
15	.27	.25	.22	.20	.17	.15	.12	.09	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00
	364	333	301	268	233	198	163	127	090	054	018	000	000	000	000	000	000	000	000
30	.30	.28	.25	.23	.20	.18	.15	.12	.10	.07	.04	.02	.00	.00	.00	.00	.00	.00	.00
	405	374	342	309	275	240	204	168	131	094	058	022	000	000	000	000	000	000	000
45	.33	.31	.28	.26	.23	.20	.18	.15	.12	.10	.07	.04	.01	.00	.00	.00	.00	.00	.00
	445	414	382	349	314	279	244	207	170	134	097	061	000	000	000	000	000	000	000

SEP-DEC 60 N

TABLE 8-1 SOLAR PARAMETERS

COS Z
XO (W/M**2.)

ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					DATE					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
0900	.36	.34	.31	.29	.26	.23	.21	.18	.15	.12	.10	.07	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	484	453	420	387	353	318	282	245	208	171	135	098	056	022	000	000	000	000	000	000	000	000	000	000	
15	.39	.36	.34	.31	.29	.26	.23	.21	.18	.15	.12	.10	.07	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	521	490	458	424	390	355	319	282	245	208	171	134	091	057	025	000	000	000	000	000	000	000	000	000	
30	.41	.39	.36	.34	.31	.29	.26	.23	.20	.18	.15	.12	.09	.07	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	
	556	525	493	460	425	390	354	317	279	242	205	168	125	091	059	028	001	000	000	000	000	000	000	000	
45	.44	.41	.39	.36	.34	.31	.28	.25	.23	.20	.17	.14	.11	.09	.07	.04	.02	.01	.00	.00	.00	.00	.00	.00	
	590	559	527	493	459	423	387	350	312	274	237	200	157	123	090	060	032	008	000	000	000	000	000	000	
0900	.46	.44	.41	.39	.36	.33	.31	.28	.25	.22	.19	.17	.13	.11	.09	.06	.04	.03	.01	.00	.00	.00	.00	.00	
	621	591	558	525	490	454	418	380	343	305	267	230	187	153	120	090	062	038	016	000	000	000	000	000	
15	.48	.46	.43	.41	.38	.35	.33	.30	.27	.24	.21	.19	.15	.13	.11	.08	.06	.05	.03	.02	.01	.00	.00	.00	
	651	620	588	554	519	483	446	409	371	333	295	258	215	180	148	118	090	065	044	027	014	005	001	001	
30	.50	.48	.45	.43	.40	.37	.35	.32	.29	.26	.23	.20	.17	.15	.12	.10	.08	.07	.05	.04	.03	.02	.02	.02	
	679	648	615	581	546	510	473	435	397	359	321	284	240	206	173	143	115	091	070	053	040	032	028	028	
45	.52	.50	.47	.45	.42	.39	.36	.33	.31	.28	.25	.22	.19	.16	.14	.12	.10	.08	.07	.05	.05	.04	.04	.04	
	704	673	640	606	571	534	497	459	421	382	344	307	263	229	196	166	139	114	094	077	064	056	053	054	
1000	.54	.51	.49	.46	.44	.41	.38	.35	.32	.29	.26	.24	.20	.18	.16	.13	.11	.10	.08	.07	.06	.06	.05	.05	
	727	696	663	628	593	556	519	480	442	403	365	327	284	249	217	187	159	135	115	099	085	078	075	076	
15	.55	.53	.50	.48	.45	.42	.39	.36	.33	.31	.28	.25	.22	.19	.17	.15	.13	.11	.10	.08	.08	.07	.07	.07	
	747	716	683	648	612	575	538	499	460	422	383	345	302	267	235	205	178	154	134	117	105	098	095	097	
30	.57	.54	.52	.49	.46	.43	.40	.38	.35	.32	.29	.26	.23	.20	.18	.16	.14	.12	.11	.10	.09	.08	.08	.08	
	765	733	700	665	629	592	554	515	476	437	399	361	317	282	250	220	193	170	150	134	122	115	113	115	
45	.58	.55	.53	.50	.47	.44	.41	.38	.36	.33	.30	.27	.24	.21	.19	.17	.15	.13	.12	.11	.10	.09	.09	.09	
	790	748	715	680	643	606	567	529	489	450	411	373	330	295	263	233	206	183	163	148	136	130	128	130	

*** SIGNIFIES COS 2 =1.
ADD 1000 TO VALUES PRECEDED BY *

SOLAR PARAMETERS COS 2
X0 (W/M**2.)

TABLE B-1

60 N

SEP-DEC

MST	SEP					OCT					DATE					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1100	.59	.56	.54	.51	.48	.45	.42	.39	.36	.33	.30	.28	.24	.22	.20	.17	.15	.14	.12	.11	.11	.10	.10	.10	
	793	761	727	691	655	617	578	539	499	460	421	383	339	305	273	243	216	193	174	159	148	142	140	143	
15	.60	.57	.54	.52	.49	.46	.43	.40	.37	.34	.31	.28	.25	.22	.20	.18	.16	.14	.13	.12	.11	.11	.11	.11	
	803	770	736	700	663	625	586	547	507	467	428	390	343	312	280	250	224	201	182	167	157	151	150	153	
30	.60	.57	.55	.52	.49	.46	.43	.40	.37	.34	.31	.28	.25	.23	.20	.18	.16	.15	.13	.12	.12	.11	.11	.11	
	809	777	742	706	669	630	591	551	511	472	432	394	350	316	284	255	229	206	187	173	163	157	157	160	
45	.60	.58	.55	.52	.49	.46	.43	.40	.37	.34	.31	.28	.25	.23	.20	.18	.16	.15	.14	.13	.12	.11	.11	.12	
	813	780	745	709	671	633	593	553	513	473	434	395	352	317	285	256	230	208	190	176	166	161	161	165	
1200	.60	.58	.55	.52	.49	.46	.43	.40	.37	.34	.31	.28	.25	.23	.20	.18	.16	.15	.13	.13	.12	.12	.12	.12	
	815	781	746	709	671	632	592	552	511	471	432	394	350	316	284	255	230	208	190	176	167	162	162	167	
15	.60	.58	.55	.52	.49	.46	.43	.40	.37	.34	.31	.28	.25	.22	.20	.18	.16	.15	.13	.12	.12	.11	.11	.12	
	813	779	744	706	668	629	588	548	507	467	427	389	345	311	280	251	226	204	187	173	165	160	161	166	
30	.60	.57	.55	.52	.49	.46	.42	.39	.36	.33	.30	.28	.24	.22	.20	.17	.16	.14	.13	.12	.11	.11	.11	.12	
	808	774	738	701	662	622	582	541	500	460	420	382	338	304	273	244	219	198	181	163	160	156	157	162	
45	.59	.57	.54	.51	.48	.45	.42	.39	.36	.33	.30	.27	.24	.21	.19	.17	.15	.13	.12	.11	.11	.11	.11	.11	
	801	766	730	692	653	613	572	531	490	449	410	371	328	294	263	235	210	189	172	160	152	148	150	156	
1300	.59	.56	.53	.50	.47	.44	.41	.38	.35	.32	.29	.26	.23	.20	.18	.16	.14	.13	.11	.11	.10	.10	.10	.10	
	791	756	719	681	641	601	560	518	477	436	397	358	315	281	250	222	198	177	161	149	141	138	140	147	
15	.58	.55	.52	.49	.46	.43	.40	.37	.34	.30	.28	.25	.21	.19	.17	.15	.13	.12	.10	.10	.09	.09	.09	.10	
	778	742	705	667	627	586	544	503	461	421	381	342	299	265	235	207	183	163	147	135	128	126	128	135	
30	.57	.54	.51	.48	.45	.42	.38	.35	.32	.29	.26	.23	.20	.18	.16	.14	.12	.10	.09	.08	.08	.08	.08	.09	
	762	726	689	650	609	568	527	485	443	402	362	324	281	247	217	189	166	146	130	119	112	110	113	120	
45	.55	.52	.49	.46	.43	.40	.37	.34	.31	.28	.25	.22	.19	.16	.14	.12	.10	.09	.08	.07	.07	.07	.07	.07	
	744	708	670	630	590	548	506	464	422	381	341	303	260	227	196	169	146	127	111	100	094	092	095	103	

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

SOLAR PARAMETERS
XO (W/M**2.)

SEP-DEC 60 N

TABLE B-1

COS Z

MST	SEP					OCT					DATE					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1400	.54	.51	.48	.45	.42	.38	.35	.32	.29	.26	.23	.20	.17	.15	.12	.10	.09	.07	.06	.05	.05	.05	.05	.08	
	723	686	648	608	567	525	483	440	399	357	317	279	236	203	173	147	124	105	090	079	073	072	075	083	
15	.52	.49	.46	.43	.40	.37	.33	.30	.27	.24	.21	.18	.15	.13	.11	.09	.07	.06	.05	.04	.04	.04	.04	.04	
	700	663	624	583	542	500	457	415	373	331	291	253	210	178	148	122	099	080	066	055	050	049	053	061	
30	.50	.47	.44	.41	.38	.35	.31	.28	.25	.22	.19	.16	.13	.11	.09	.07	.05	.04	.03	.02	.02	.02	.02	.03	
	674	636	597	556	515	472	429	387	344	303	263	225	182	150	120	094	072	054	040	030	025	024	028	037	
45	.48	.45	.42	.39	.36	.32	.29	.26	.23	.20	.17	.14	.11	.09	.07	.05	.03	.02	.01	.00	.00	.00	.00	.01	
	646	608	568	527	485	442	399	356	314	272	233	195	152	120	091	065	043	025	011	002	000	000	001	010	
1500	.46	.43	.40	.37	.33	.30	.27	.24	.20	.17	.14	.12	.09	.06	.04	.02	.01	.00	.00	.00	.00	.00	.00	.00	
	616	578	537	496	453	410	367	324	281	240	200	162	120	088	059	033	012	000	000	000	000	000	000	000	
15	.43	.40	.37	.34	.31	.28	.24	.21	.18	.15	.12	.09	.06	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	584	545	504	463	420	376	333	289	247	205	165	128	086	054	025	000	000	000	000	000	000	000	000	000	
30	.41	.38	.35	.31	.28	.25	.22	.18	.15	.12	.09	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	550	511	470	427	384	340	297	253	211	169	129	092	050	018	000	000	000	000	000	000	000	000	000	000	
45	.38	.35	.32	.29	.25	.22	.19	.16	.13	.10	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	514	474	433	390	347	303	259	215	173	131	092	054	012	000	000	000	000	000	000	000	000	000	000	000	
1600	.35	.32	.29	.26	.23	.19	.16	.13	.10	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	477	437	395	352	308	264	220	176	133	092	052	015	000	000	000	000	000	000	000	000	000	000	000	000	
15	.33	.29	.26	.23	.20	.16	.13	.10	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	438	398	355	312	268	224	179	135	093	051	012	000	000	000	000	000	000	000	000	000	000	000	000	000	
30	.30	.26	.23	.20	.17	.13	.10	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	398	357	315	271	227	182	138	094	051	010	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
45	.27	.23	.20	.17	.14	.10	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	357	316	273	229	184	140	095	051	008	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	

SEP-DEC 60 N TABLE B-1 SOLAR PARAMETERS COS Z *** SIGNIFIES COS Z =1.
X0 (W/M*2.) ADD 1000 TO VALUES PRECEDED BY *

MST	DATE																			
	SEP					OCT					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30		
1700	.23	.20	.17	.14	.10	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	315	273	230	186	141	096	052	008	000	000	000	000	000	000	000	000	000	000	000	
15	.20	.17	.14	.11	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	272	230	187	143	098	052	008	000	000	000	000	000	000	000	000	000	000	000	000	
30	.17	.14	.11	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	229	187	143	098	053	008	000	000	000	000	000	000	000	000	000	000	000	000	000	
45	.14	.11	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	186	143	099	054	009	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
1800	.11	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	142	099	055	010	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
15	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	098	055	011	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
30	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	054	011	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
45	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	011	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	

*** SIGNIFIES COS 2 =1.
ADD 1000 TO VALUES PRECEDED BY *

SOLAR PARAMETERS
X0 (W/M**2.)

TABLE 8-1

SEP-DEC 60 N

MST	DATE												APR												
	JAN						FEB						MAR						APR						
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
0600	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
0700	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
45	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05

... SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY .

SOLAR PARAMETERS COS Z
XO (W/M-2.)

TABLE B-1

JAN-APR 40 N

MST	DATE							MAR							APR																	
	JAN		FEB			DATE		5		10			15		20		25		30		5		10			15		20		25		30
0800	.09	.09	.09	.10	.11	.12	.13	.15	.17	.19	.21	.23	.27	.30	.33	.35	.38	.41	.44	.45	.48	.50	.52	.54	.57	.60	.62	.64	.66	.68	.69	
	129	129	133	140	151	166	184	210	2.5	263	294	326	381	417	453	488	524	558	597	623	657	683	707	728	759	784	808	832	856	879	899	
	.13	.13	.13	.14	.15	.16	.17	.19	.21	.23	.25	.28	.32	.34	.37	.40	.42	.45	.48	.50	.53	.55	.56	.58	.61	.63	.65	.67	.69	.71	.73	.75
15	185	186	190	197	209	224	243	270	295	324	354	387	442	477	513	549	583	617	656	683	711	740	763	784	816	836	856	876	896	916	936	
30	.17	.17	.17	.18	.19	.20	.21	.23	.25	.27	.30	.32	.35	.39	.41	.44	.47	.49	.52	.54	.57	.59	.60	.62	.64	.66	.68	.70	.72	.74	.76	
	239	240	244	252	265	280	300	327	353	382	413	445	503	535	571	606	641	674	712	741	769	794	816	836	856	876	896	916	936	956	976	
45	.21	.21	.21	.22	.23	.24	.25	.27	.29	.31	.33	.36	.40	.43	.45	.48	.51	.53	.56	.58	.60	.62	.64	.66	.68	.70	.72	.74	.76	.78	.80	
	290	291	296	305	318	334	354	382	408	437	468	501	556	591	626	661	695	728	765	794	821	845	867	886	906	926	946	966	986	1006	1026	
0900	.24	.24	.24	.25	.26	.27	.29	.31	.33	.35	.37	.40	.44	.46	.49	.52	.54	.57	.60	.62	.64	.66	.68	.69	.71	.73	.75	.77	.79	.81	.83	
	338	340	346	355	368	385	406	434	461	490	521	554	609	644	679	713	747	779	816	843	870	894	915	934	954	974	994	1014	1034	1054	1074	
15	.27	.27	.28	.28	.29	.31	.32	.34	.36	.39	.41	.43	.47	.50	.53	.55	.58	.60	.63	.65	.67	.69	.71	.73	.75	.77	.79	.81	.83	.85	.87	
	384	386	392	402	416	434	454	483	511	540	571	604	659	694	728	762	795	827	863	891	919	939	960	978	998	1018	1038	1058	1078	1098	1118	
30	.30	.30	.31	.32	.33	.34	.35	.38	.40	.42	.44	.47	.51	.53	.56	.59	.61	.64	.66	.68	.71	.72	.74	.76	.78	.80	.82	.84	.86	.88	.90	
	426	428	435	446	461	479	500	529	557	587	618	651	706	740	774	808	841	872	907	931	959	981	001	019	039	059	079	099	119	139	159	
45	.33	.33	.34	.34	.36	.37	.38	.41	.43	.45	.47	.50	.54	.56	.59	.62	.64	.67	.69	.71	.73	.75	.77	.78	.80	.82	.84	.86	.88	.90	.92	
	465	468	475	487	502	520	542	572	600	630	662	695	749	783	817	850	882	913	947	974	993	020	039	056	076	096	116	136	156	176	196	
1000	.35	.36	.36	.37	.38	.40	.41	.43	.46	.48	.50	.53	.57	.59	.62	.64	.67	.69	.72	.74	.75	.78	.79	.81	.83	.85	.87	.89	.91	.93	.95	
	500	504	512	524	539	559	581	611	640	670	702	735	789	823	856	889	920	950	984	010	033	055	074	090	110	130	150	170	190	210	230	
15	.38	.38	.39	.39	.41	.42	.44	.46	.48	.50	.53	.55	.59	.62	.64	.67	.69	.72	.74	.75	.78	.80	.82	.83	.85	.87	.89	.91	.93	.95	.97	
	532	536	544	557	573	593	616	647	675	706	738	771	825	858	891	924	955	984	017	042	065	086	104	120	140	160	180	200	220	240	260	
30	.40	.40	.41	.42	.43	.44	.46	.48	.50	.53	.55	.58	.62	.64	.67	.69	.72	.74	.76	.79	.80	.82	.84	.85	.87	.89	.91	.93	.95	.97	.99	
	559	564	573	587	604	624	647	679	707	738	770	803	856	890	923	954	985	014	046	071	093	113	131	146	166	186	206	226	246	266	286	
45	.41	.42	.42	.43	.45	.46	.48	.50	.52	.55	.57	.60	.64	.66	.69	.71	.73	.76	.78	.80	.82	.84	.85	.87	.89	.91	.93	.95	.97	.99	001	
	583	588	599	612	630	651	674	706	735	766	798	831	884	917	950	981	011	039	071	095	117	136	154	169	189	209	229	249	269	289	309	

JAN-APR 40 N TABLE B-1 SOLAR PARAMETERS COS 2 ... SIGNIFIES COS 2 = 1.
X0 (W/M*2.) ADD 1000 TO VALUES PRECEDED BY *

MST	JAN					FEB					MAR					APR														
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30											
1100	.43	.43	.44	.45	.46	.48	.50	.52	.54	.56	.59	.61	.65	.68	.70	.73	.75	.77	.80	.82	.84	.85	.87	.88	.091	.115	.136	.155	.172	.187
15	.44	.44	.45	.46	.47	.49	.51	.53	.55	.58	.60	.63	.67	.69	.72	.74	.76	.79	.81	.83	.85	.86	.88	.89	.108	.131	.152	.170	.187	.201
30	.45	.45	.46	.47	.48	.50	.52	.54	.57	.59	.61	.64	.68	.70	.73	.75	.77	.79	.82	.84	.86	.87	.89	.90	.120	.142	.163	.181	.197	.211
45	.45	.46	.47	.48	.49	.51	.53	.55	.57	.60	.62	.65	.69	.71	.73	.76	.78	.80	.82	.84	.86	.88	.89	.90	.127	.143	.159	.187	.203	.216
1200	.45	.46	.47	.48	.49	.51	.53	.56	.58	.60	.63	.65	.69	.71	.74	.76	.78	.80	.83	.84	.86	.88	.89	.90	.130	.152	.171	.189	.204	.218
15	.45	.46	.47	.48	.50	.51	.53	.56	.58	.60	.63	.65	.69	.71	.74	.76	.78	.80	.83	.84	.86	.87	.89	.90	.129	.150	.169	.186	.201	.215
30	.45	.45	.47	.48	.49	.51	.53	.55	.58	.60	.62	.65	.69	.71	.73	.76	.78	.80	.82	.84	.86	.87	.89	.90	.123	.144	.163	.179	.194	.207
45	.44	.45	.46	.47	.49	.51	.52	.55	.57	.60	.62	.64	.68	.71	.73	.75	.77	.79	.81	.83	.85	.86	.87	.89	.113	.133	.152	.168	.183	.196
1300	.43	.44	.45	.46	.48	.50	.52	.54	.56	.59	.61	.64	.67	.70	.72	.74	.76	.78	.80	.82	.84	.85	.86	.88	.098	.119	.133	.153	.167	.180
15	.42	.43	.44	.45	.47	.49	.51	.53	.55	.58	.60	.62	.66	.68	.71	.73	.75	.77	.79	.81	.82	.84	.85	.86	.079	.099	.117	.133	.148	.160
30	.40	.41	.42	.44	.45	.47	.49	.52	.54	.56	.59	.61	.65	.67	.69	.71	.73	.75	.77	.79	.80	.82	.83	.84	.056	.075	.091	.109	.124	.137
45	.39	.39	.40	.42	.44	.45	.47	.50	.52	.54	.57	.59	.63	.65	.67	.69	.71	.73	.75	.77	.78	.80	.81	.82	.029	.049	.069	.081	.096	.109
	.545	.556	.572	.592	.615	.640	.668	.703	.733	.764	.795	.826	.874	.902	.930	.956	.981	.004												

*** SIGNIFIED COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

SOLAR PARAMETERS COS Z
X0 (W/M**2.)

TABLE B-1

40 N

JAN-APR

MST	JAN							FEB							MAR							APR						
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30			
1400	.36	.37	.38	.40	.42	.43	.45	.48	.50	.52	.55	.57	.61	.63	.65	.67	.69	.71	.73	.75	.76	.77	.79	.80				
	515	526	543	563	587	612	639	674	704	735	766	797	844	873	900	926	950	972	997	016	034	050	064	077				
15	.34	.35	.36	.38	.39	.41	.43	.46	.48	.50	.52	.55	.58	.60	.63	.65	.67	.68	.70	.72	.73	.75	.76	.77				
	481	493	510	531	554	580	607	642	672	703	733	764	811	839	866	891	915	937	962	981	998	014	029	042				
30	.31	.32	.34	.35	.37	.39	.41	.43	.45	.48	.50	.52	.56	.58	.60	.62	.64	.65	.68	.69	.71	.72	.73	.74				
	444	456	474	494	518	544	571	606	636	666	697	727	773	801	822	853	876	899	923	942	959	975	990	003				
45	.29	.29	.31	.32	.34	.36	.38	.40	.42	.45	.47	.49	.53	.55	.57	.59	.61	.62	.64	.65	.67	.69	.70	.71				
	403	415	433	455	478	504	532	566	596	626	656	686	732	760	786	811	834	856	880	893	916	933	947	961				
1500	.25	.26	.28	.29	.31	.33	.35	.37	.39	.42	.44	.46	.49	.52	.54	.55	.57	.59	.61	.63	.64	.65	.67	.68				
	359	372	390	411	435	461	488	523	553	583	612	642	686	715	741	765	788	810	834	853	871	887	902	916				
15	.22	.23	.24	.26	.28	.29	.31	.34	.36	.38	.40	.43	.46	.48	.50	.52	.54	.55	.57	.59	.60	.62	.63	.64				
	312	325	344	365	389	415	442	476	506	536	565	594	633	666	692	716	739	761	785	804	821	838	853	867				
30	.19	.19	.21	.22	.24	.26	.28	.30	.32	.35	.37	.39	.42	.44	.46	.48	.50	.52	.54	.55	.57	.58	.59	.61				
	262	275	294	316	339	365	392	427	456	485	515	544	586	615	640	664	687	709	733	752	769	786	801	816				
45	.15	.16	.17	.19	.20	.22	.24	.27	.29	.31	.33	.35	.38	.40	.42	.44	.46	.48	.50	.51	.53	.54	.55	.57				
	210	223	242	263	287	313	340	374	403	432	461	490	534	560	586	610	632	654	678	697	715	732	747	762				
1600	.11	.12	.13	.15	.16	.18	.20	.23	.25	.27	.29	.31	.34	.36	.38	.40	.42	.43	.45	.47	.48	.50	.51	.52				
	155	168	187	209	232	258	285	319	348	376	405	433	477	503	528	552	575	596	621	640	658	675	691	706				
15	.07	.08	.09	.11	.12	.14	.16	.19	.21	.23	.25	.27	.30	.32	.34	.36	.37	.39	.41	.43	.44	.45	.47	.48				
	098	111	130	152	175	201	228	261	290	318	347	375	418	444	469	492	515	536	561	580	598	616	632	648				
30	.03	.04	.05	.07	.08	.10	.12	.14	.16	.18	.20	.22	.26	.28	.29	.31	.33	.35	.37	.38	.40	.41	.42	.44				
	039	052	071	093	116	141	168	201	229	258	286	313	356	382	407	430	453	474	499	518	537	555	572	588				
45	.00	.00	.01	.02	.04	.06	.08	.10	.12	.14	.16	.18	.21	.23	.25	.27	.28	.30	.32	.33	.35	.36	.38	.39				
	000	000	010	032	055	080	107	139	167	195	223	250	293	318	343	366	389	411	435	455	474	492	510	526				

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

SOLAR PARAMETERS COS Z
XO (W/M**2.)

TABLE B-1

JAN-APR 40 N

MST	DATE												APR												
	JAN						FEB						MAR						APR						
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1700	.00	.00	.00	.00	.00	.01	.03	.05	.07	.09	.11	.13	.16	.18	.20	.22	.24	.25	.27	.29	.30	.32	.33	.34	
	000	000	000	000	000	017	043	076	103	131	158	185	228	253	277	301	324	345	370	390	410	428	446	464	
15	.00	.00	.00	.00	.00	.00	.00	.01	.03	.05	.07	.09	.12	.13	.15	.17	.19	.20	.22	.21	.25	.27	.28	.30	
	000	000	000	000	000	000	000	011	038	065	092	119	161	186	211	234	257	279	304	325	344	363	382	400	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.04	.07	.09	.10	.12	.14	.15	.17	.13	.20	.22	.23	.25	
	000	000	000	000	000	000	000	000	000	000	025	052	093	118	143	166	189	211	237	258	278	297	316	335	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.04	.05	.07	.09	.10	.12	.14	.16	.17	.19	.20	
	000	000	000	000	000	000	000	000	000	000	000	000	025	050	074	098	121	143	169	190	211	231	251	270	
1800	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.04	.05	.07	.08	.11	.12	.14	.15	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	005	029	052	074	101	123	144	164	185	204
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.04	.05	.07	.09	.10	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	006	033	055	076	098	118	139	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.02	.04	.06	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	031	053	074	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	009	

... SIGNIFIES COS 2 =1.
ADD 1000 TO VALUES PRECEDED BY .

SOLAR PARAMETERS
X0 (W/N*2.)

TABLE B-1

JAN-APR 40 N

MST	DATE											
	MAY				JUN				JUL			
	5	10	15	20	25	30	5	10	15	20	25	30
0700	.38 .39 .41 .42 .42 .43	509 527 543 555 565 572	.43 .44 .44 .44 .43 .43	577 578 578 575 570 564	.43 .43 .43 .43 .43 .43	555 556 556 556 554 551	.42 .41 .40 .40 .39 .37	555 556 556 556 554 551	.43 .43 .43 .43 .43 .43	555 556 556 556 554 551	.43 .43 .43 .43 .43 .43	555 556 556 556 554 551
15	.42 .44 .45 .46 .47 .47	571 589 603 615 624 631	.48 .48 .48 .48 .48 .47	636 637 636 633 629 622	.48 .48 .48 .48 .48 .47	614 605 595 584 571 558	.46 .45 .45 .44 .43 .42	614 605 595 584 571 558	.46 .45 .45 .44 .43 .42	614 605 595 584 571 558	.46 .45 .45 .44 .43 .42	614 605 595 584 571 558
30	.47 .48 .50 .51 .51 .52	631 648 663 674 683 689	.52 .52 .52 .52 .52 .51	693 694 693 690 686 680	.52 .52 .52 .52 .52 .51	672 663 653 642 631 618	.51 .50 .49 .48 .48 .47	672 663 653 642 631 618	.51 .50 .49 .48 .48 .47	672 663 653 642 631 618	.51 .50 .49 .48 .48 .47	672 663 653 642 631 618
45	.51 .53 .54 .55 .55 .56	690 706 720 731 739 745	.56 .57 .57 .56 .56 .56	749 750 749 746 742 736	.56 .57 .57 .56 .56 .56	728 720 710 700 688 676	.55 .54 .53 .53 .52 .51	728 720 710 700 688 676	.55 .54 .53 .53 .52 .51	728 720 710 700 688 676	.55 .54 .53 .53 .52 .51	728 720 710 700 688 676
0800	.56 .57 .58 .59 .60 .60	747 763 776 786 794 799	.60 .61 .61 .60 .60 .60	803 804 803 800 796 790	.60 .61 .61 .60 .60 .60	783 775 765 755 744 733	.59 .59 .58 .57 .56 .55	783 775 765 755 744 733	.59 .59 .58 .57 .56 .55	783 775 765 755 744 733	.59 .59 .58 .57 .56 .55	783 775 765 755 744 733
15	.60 .61 .62 .63 .64 .64	801 817 829 839 847 852	.64 .65 .64 .64 .64 .64	855 856 855 852 848 842	.64 .65 .64 .64 .64 .64	835 827 819 809 798 787	.63 .63 .62 .61 .60 .59	835 827 819 809 798 787	.63 .63 .62 .61 .60 .59	835 827 819 809 798 787	.63 .63 .62 .61 .60 .59	835 827 819 809 798 787
30	.63 .65 .66 .67 .67 .68	854 868 880 890 897 902	.68 .68 .68 .68 .68 .67	905 906 904 902 898 892	.68 .68 .68 .68 .68 .67	886 878 870 860 850 839	.67 .66 .66 .65 .64 .63	886 878 870 860 850 839	.67 .66 .66 .65 .64 .63	886 878 870 860 850 839	.67 .66 .66 .65 .64 .63	886 878 870 860 850 839
45	.67 .68 .69 .70 .71 .71	903 917 929 938 945 949	.72 .72 .72 .72 .72 .71	952 953 952 949 945 940	.72 .72 .72 .72 .72 .71	934 926 918 909 900 889	.71 .70 .69 .69 .68 .67	934 926 918 909 900 889	.71 .70 .69 .69 .68 .67	934 926 918 909 900 889	.71 .70 .69 .69 .68 .67	934 926 918 909 900 889
0900	.71 .72 .73 .74 .74 .75	950 963 974 983 990 994	.75 .75 .75 .75 .75 .74	997 997 996 994 990 985	.75 .75 .75 .75 .75 .74	979 972 964 956 947 936	.74 .73 .73 .72 .71 .71	979 972 964 956 947 936	.74 .73 .73 .72 .71 .71	979 972 964 956 947 936	.74 .73 .73 .72 .71 .71	979 972 964 956 947 936
15	.74 .75 .76 .77 .77 .78	993 1006 1017 1025 1032 1036	.78 .78 .78 .78 .78 .78	1039 1039 1038 1036 1032 1027	.78 .78 .78 .78 .78 .78	1022 1015 1008 1000 991 981	.77 .77 .76 .75 .75 .74	1022 1015 1008 1000 991 981	.77 .77 .76 .75 .75 .74	1022 1015 1008 1000 991 981	.77 .77 .76 .75 .75 .74	1022 1015 1008 1000 991 981
30	.77 .78 .79 .80 .80 .81	1034 1046 1057 1065 1071 1075	.81 .81 .81 .81 .81 .81	1077 1078 1077 1075 1071 1067	.81 .81 .81 .81 .81 .81	1061 1055 1048 1040 1032 1022	.80 .80 .79 .79 .78 .77	1061 1055 1048 1040 1032 1022	.80 .80 .79 .79 .78 .77	1061 1055 1048 1040 1032 1022	.80 .80 .79 .79 .78 .77	1061 1055 1048 1040 1032 1022
45	.80 .81 .82 .82 .83 .83	1071 1083 1093 1101 1106 1110	.84 .84 .84 .84 .84 .83	1113 1113 1113 1110 1107 1103	.84 .84 .84 .84 .84 .83	1093 1092 1085 1078 1069 1060	.83 .83 .82 .81 .81 .80	1093 1092 1085 1078 1069 1060	.83 .83 .82 .81 .81 .80	1093 1092 1085 1078 1069 1060	.83 .83 .82 .81 .81 .80	1093 1092 1085 1078 1069 1060

... SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY .

TABLE B-1 SOLAR PARAMETERS
COS Z
XO (W/M**2.)

MAY-AUG 40 N

MST	MAY					JUN					JUL					AUG				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30		
1000	.82 .83 .84 .85 .85 .86 *104*116*125*133*139*143	.86 .86 .86 .86 .86 .86 *145*146*145*143*140*136	.85 .85 .85 .85 .84 .83 .82 *131*126*119*112*104*095	.81 .81 .79 .78 .77 .76 *084*073*061*048*034*019																
15	.84 .85 .86 .87 .88 .88 *134*145*155*162*167*171	.88 .88 .89 .88 .88 .88 *174*174*174*172*169*166	.83 .87 .87 .86 .86 .85 *161*156*150*143*135*127	.84 .83 .82 .81 .80 .78 *115*104*093*080*066*050																
30	.86 .87 .88 .89 .89 .90 *160*171*180*187*192*196	.90 .90 .90 .90 .90 .90 *199*199*199*197*195*192	.90 .89 .89 .88 .88 .87 *187*182*177*170*163*154	.86 .85 .84 .83 .82 .80 *143*132*121*108*094*078																
45	.88 .89 .90 .90 .91 .91 *182*192*201*208*213*217	.92 .92 .92 .92 .92 .92 *220*221*221*219*217*214	.91 .91 .91 .91 .90 .89 .89 *210*205*200*193*186*178	.88 .87 .86 .85 .83 .82 *167*153*145*132*117*102																
1100	.89 .90 .91 .92 .92 .93 *199*210*219*226*231*235	.93 .93 .93 .93 .93 .93 *237*238*238*237*235*232	.93 .93 .92 .92 .91 .90 *229*224*219*213*206*198	.89 .84 .87 .86 .85 .83 *187*177*165*152*137*121																
15	.90 .91 .92 .93 .93 .94 *213*224*232*239*244*248	.94 .94 .94 .94 .94 .94 *251*252*252*251*250*247	.94 .94 .93 .93 .92 .91 *244*240*235*229*222*214	.90 .90 .88 .87 .86 .85 *203*193*181*168*153*136																
30	.91 .92 .93 .93 .94 .94 *223*233*241*248*253*257	.95 .95 .95 .95 .95 .95 *260*262*262*262*260*258	.95 .95 .94 .94 .93 .92 *255*251*246*241*234*226	.91 .90 .89 .88 .87 .85 *215*203*193*179*164*147																
45	.91 .92 .93 .94 .94 .95 *228*238*247*253*259*263	.95 .96 .96 .96 .96 .96 *266*268*268*268*267*265	.95 .95 .95 .94 .94 .93 *262*258*253*248*242*234	.92 .91 .90 .89 .87 .86 *223*212*200*187*171*154																
1200	.91 .92 .93 .94 .94 .95 *229*239*248*254*260*264	.95 .96 .96 .96 .96 .96 *268*269*270*270*269*268	.96 .95 .95 .94 .94 .93 *265*262*259*252*246*238	.92 .91 .90 .89 .88 .86 *227*216*204*190*174*157																
15	.91 .92 .93 .94 .94 .95 *226*236*244*251*257*261	.95 .95 .96 .96 .96 .96 *265*267*268*269*269*267	.96 .95 .95 .94 .94 .93 *264*261*257*252*245*238	.92 .91 .90 .89 .87 .86 *227*215*203*189*173*155																
30	.91 .92 .92 .93 .94 .94 *219*229*237*244*250*254	.95 .95 .95 .95 .95 .95 *259*261*262*263*263*262	.95 .95 .95 .94 .94 .93 *260*257*253*247*241*233	.92 .91 .90 .88 .87 .85 *222*211*199*183*167*148																
45	.90 .91 .92 .92 .93 .93 *207*217*226*233*239*244	.94 .94 .94 .95 .95 .95 *248*251*253*253*253*253	.95 .94 .94 .93 .93 .92 *251*243*244*239*233*225	.91 .90 .89 .88 .86 .85 *213*202*189*174*157*138																

MAY-AUG 40 N TABLE B-1 SOLAR PARAMETERS COS Z
X0 (W/W+2.) ADD 1000 TO VALUES PRECEDED BY .

... SIGNIFIES COS Z = 1.

MST	MAY					JUN					JUL					AUG								
	DATE					DATE					DATE					DATE								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1300	.89	.90	.90	.91	.92	.92	.93	.93	.93	.94	.94	.94	.91	.93	.93	.93	.92	.91	.90	.89	.88	.87	.85	.84
15	.87	.88	.89	.90	.91	.91	.91	.92	.92	.92	.92	.92	.92	.92	.92	.91	.91	.90	.89	.88	.87	.85	.84	.82
30	.85	.86	.87	.88	.89	.89	.90	.90	.90	.91	.91	.91	.91	.91	.90	.90	.89	.88	.87	.86	.85	.84	.82	.80
45	.83	.84	.85	.86	.87	.87	.88	.88	.89	.89	.89	.89	.89	.89	.88	.88	.87	.87	.86	.85	.84	.83	.82	.80
1400	.81	.82	.83	.84	.84	.85	.86	.86	.86	.87	.87	.87	.87	.87	.86	.86	.85	.85	.84	.83	.82	.81	.80	.78
15	.78	.79	.80	.81	.82	.82	.83	.84	.84	.84	.84	.85	.84	.84	.84	.84	.83	.82	.81	.80	.79	.77	.75	.73
30	.75	.76	.77	.78	.79	.80	.80	.81	.81	.82	.82	.82	.82	.82	.81	.81	.80	.79	.78	.77	.76	.74	.72	.71
45	.72	.73	.74	.75	.76	.77	.77	.78	.78	.79	.79	.79	.79	.79	.78	.78	.77	.77	.76	.75	.74	.73	.71	.69
1500	.69	.70	.71	.72	.73	.73	.74	.75	.75	.76	.76	.76	.76	.76	.75	.75	.74	.73	.72	.71	.70	.68	.66	.64
15	.65	.67	.68	.68	.69	.70	.71	.71	.72	.72	.72	.73	.73	.73	.72	.72	.71	.70	.69	.68	.67	.65	.64	.63
30	.62	.63	.64	.65	.66	.66	.67	.68	.68	.69	.69	.69	.69	.69	.68	.68	.67	.66	.65	.64	.63	.62	.61	.59
45	.58	.59	.60	.61	.62	.63	.63	.64	.65	.65	.65	.65	.65	.65	.64	.64	.63	.62	.61	.60	.58	.57	.55	.53

TABLE 8-1 SOLAR PARAMETERS COS 2 ... SIGNIFIES COS 2 = 1.
 MAY-AUG 40 N ADD 1000 TO VALUES PRECEDED BY +
 X0 (W/M**2.)

MST	MAY					JUN					JUL					AUG				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30		
600	.54	.55	.56	.57	.58	.59	.60	.60	.61	.61	.61	.60	.59	.57	.55	.54	.53	.51	.48	
	721	734	747	759	770	780	791	798	804	809	812	814	813	811	807	800	791	780	763	
15	.49	.50	.52	.53	.54	.54	.55	.56	.57	.57	.57	.57	.55	.57	.57	.57	.56	.55	.53	
	663	677	691	703	714	725	736	744	750	755	759	760	760	758	753	746	737	725	707	
30	.45	.46	.47	.48	.49	.50	.51	.52	.52	.53	.53	.53	.53	.53	.53	.53	.52	.51	.49	
	604	618	632	645	657	668	680	688	695	700	704	705	705	702	698	690	681	668	650	
45	.40	.42	.43	.44	.45	.46	.47	.48	.48	.49	.49	.49	.46	.49	.48	.48	.47	.46	.44	
	543	558	572	586	598	610	622	631	638	643	647	648	643	645	640	633	623	610	591	
1700	.36	.37	.38	.39	.40	.41	.42	.43	.44	.44	.44	.45	.41	.45	.44	.44	.43	.42	.40	
	480	496	511	525	538	550	563	572	579	585	589	590	590	587	582	574	563	550	530	
15	.31	.32	.34	.35	.36	.37	.38	.39	.39	.40	.40	.40	.37	.40	.40	.39	.39	.38	.35	
	417	433	449	464	477	490	503	512	520	526	529	531	531	528	522	514	503	489	469	
30	.26	.28	.29	.30	.31	.32	.33	.34	.35	.35	.35	.36	.32	.35	.35	.34	.33	.32	.31	
	353	370	386	401	415	428	442	452	459	465	469	471	470	467	461	453	441	427	406	
45	.21	.23	.24	.25	.27	.28	.29	.29	.30	.31	.31	.31	.27	.31	.30	.30	.29	.27	.26	
	288	306	322	338	353	366	381	391	399	405	409	410	410	406	400	391	379	365	343	
1800	.17	.18	.19	.21	.22	.23	.24	.25	.26	.26	.26	.26	.23	.26	.26	.25	.24	.23	.21	
	223	241	259	275	290	304	319	329	338	344	348	350	349	345	339	329	317	302	279	
15	.12	.13	.15	.16	.17	.18	.19	.20	.21	.21	.22	.22	.18	.22	.21	.21	.20	.19	.16	
	158	177	195	212	228	242	257	268	277	283	287	289	287	284	277	267	254	239	216	
30	.07	.08	.10	.11	.12	.14	.15	.16	.16	.17	.17	.17	.13	.17	.16	.16	.15	.13	.11	
	994	113	132	150	166	181	196	207	216	222	226	228	225	222	215	205	192	176	152	
45	.02	.04	.05	.07	.08	.09	.10	.11	.12	.12	.13	.13	.09	.13	.12	.12	.11	.10	.07	
	830	850	869	888	904	920	935	947	956	962	966	967	960	955	939	910	880	850	809	

TABLE 8-1 SOLAR PARAMETERS COS Z
 MAY-AUG 40 N
 ... SIGNIFIES COS Z = 1.
 :DD 1000 TO VALUES PRECEDED BY .

MST	DATE											
	MAY				JUN				JUL			
	5	10	15	20	25	30	5	10	15	20	25	30
1900	.00	.00	.01	.02	.03	.04	.06	.07	.07	.08	.09	.08
	000	000	008	026	044	059	076	087	096	103	107	109
15	.00	.00	.00	.00	.00	.00	.01	.02	.03	.03	.04	.04
	000	000	000	000	000	000	017	028	038	044	048	049
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000

MAY-AUG 40 N TABLE B-1 SOLAR PARAMETERS COS Z ** SIGNIFIES COS Z =1.
 X0 (W/M**2.) ADD 1000 TO VALUES PRECEDED BY *

MST	DATE												NOV												DEC											
	SEP				OCT				NOV				DEC				NOV				DEC				NOV				DEC							
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30						
3500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000						
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000						
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000						
45	.04	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
	047	027	006	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000						
0600	.09	.07	.06	.04	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
	114	094	074	053	032	010	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000						
15	.13	.12	.11	.09	.07	.06	.04	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
	181	162	142	121	100	079	056	033	009	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000						
30	.18	.17	.15	.14	.12	.11	.09	.07	.06	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
	248	229	209	189	168	146	124	100	076	051	026	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000						
45	.23	.22	.20	.19	.17	.16	.14	.12	.10	.09	.07	.05	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
	314	295	276	256	235	213	191	167	143	118	092	066	034	003	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000						
0700	.28	.27	.25	.24	.22	.20	.19	.17	.15	.13	.11	.09	.07	.05	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
	379	361	342	322	301	279	257	233	208	183	157	130	098	072	046	020	000	000	000	000	000	000	000	000	000	000	000	000	000	000						
15	.33	.31	.30	.28	.27	.25	.23	.22	.20	.18	.16	.14	.12	.10	.08	.06	.04	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
	443	425	406	386	366	344	321	297	272	247	221	194	161	133	108	082	058	035	014	000	000	000	000	000	000	000	000	000	000	000						
30	.38	.36	.35	.33	.31	.30	.28	.26	.24	.22	.20	.18	.16	.14	.12	.10	.08	.07	.05	.04	.03	.02	.01	.01	.05	.04	.03	.02	.01	.01						
	506	488	469	449	429	407	384	360	335	309	282	255	223	195	169	143	118	096	075	053	031	028	019	013	075	053	031	028	019	013						
45	.42	.41	.39	.38	.36	.34	.32	.31	.29	.27	.25	.23	.20	.18	.16	.14	.13	.11	.10	.08	.07	.06	.05	.05	.10	.08	.07	.06	.06	.05						
	567	549	530	511	490	468	445	420	395	369	342	315	282	254	228	202	177	154	133	113	100	087	078	073	133	113	100	087	078	073						

TABLE B-1 SOLAR PARAMETERS CCS Z
 SEP-DEC 40 N
 ... SIGNIFIES CCS Z = 1.
 ADD 1000 TO VALUES PRECEDED BY .

MST	SEP						OCT						DATE						NOV						DEC					
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
0800	.46	.45	.44	.42	.40	.39																								
	626	608	589	570	549	527																								
15	.51	.49	.48	.46	.44	.43																								
	682	665	646	626	605	583																								
30	.55	.53	.52	.50	.48	.47																								
	737	719	700	681	659	637																								
45	.59	.57	.56	.54	.52	.50																								
	788	771	752	732	710	688																								
0900	.62	.61	.59	.57	.56	.54																								
	837	819	800	780	759	736																								
15	.66	.64	.62	.61	.59	.57																								
	883	865	846	825	803	780																								
30	.69	.67	.66	.64	.62	.60																								
	925	907	888	867	845	821																								
45	.72	.70	.68	.67	.65	.63																								
	964	945	926	905	882	858																								
1000	.74	.73	.71	.69	.67	.65																								
	999	980	960	939	916	892																								
15	.76	.75	.73	.71	.69	.67																								
	030	011	991	969	946	921																								
30	.78	.77	.75	.73	.71	.69																								
	057	038*	018	996	972	947																								
45	.80	.79	.77	.75	.73	.71																								
	081	061*	040*	018	994	968																								

SEP-DEC 40 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M**2.) *** SIGNIFIES COS Z =1. ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					NOV					DEC										
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30		
1100	.82	.80	.78	.76	.74	.72	.70	.68	.65	.63	.61	.58	.55	.53	.51	.49	.48	.46	.45	.41	.43	.43	.42	.43		
	*100*080*059*036*011					985	957	929	899	869	839	809	773	745	718	692	669	649	632	613	608	602	599	601		
15	.83	.81	.79	.77	.75	.73	.71	.68	.66	.64	.61	.59	.56	.54	.52	.50	.48	.47	.46	.45	.44	.44	.43	.44		
	*114*094*073*049*024					997	969	940	911	880	850	819	784	755	728	703	681	661	644	631	621	616	614	616		
30	.83	.82	.80	.78	.76	.74	.71	.69	.67	.64	.62	.59	.57	.55	.53	.51	.49	.48	.46	.45	.45	.44	.44	.44		
	*125*104*082*058*032*005						977	948	917	887	856	826	790	762	735	710	688	669	652	640	631	626	625	628		
45	.84	.82	.80	.78	.76	.74	.72	.69	.67	.64	.62	.59	.57	.55	.53	.51	.49	.48	.47	.45	.45	.45	.45	.45		
	*131*110*087*063*037*009						980	950	920	889	858	827	792	764	737	713	691	672	656	644	635	631	631	635		
1200	.84	.82	.80	.78	.76	.74	.71	.69	.67	.64	.62	.59	.57	.55	.53	.51	.49	.48	.47	.45	.45	.45	.45	.45		
	*133*111*088*063*036*008						979	949	918	886	855	825	789	761	735	711	689	671	656	644	637	633	633	638		
15	.84	.82	.80	.78	.76	.73	.71	.69	.66	.64	.61	.59	.56	.54	.52	.50	.49	.47	.46	.45	.45	.45	.45	.45		
	*130*108*084*059*031*003						973	942	911	880	848	818	782	754	726	705	684	666	651	640	633	630	631	636		
30	.83	.81	.79	.77	.75	.73	.70	.68	.65	.63	.60	.58	.55	.53	.51	.50	.48	.47	.46	.45	.44	.44	.44	.45		
	*123*101*076*050*022					993	963	932	900	868	837	806	771	743	718	694	674	656	642	632	625	623	625	630		
45	.83	.81	.79	.76	.74	.72	.69	.67	.64	.62	.59	.57	.54	.52	.50	.48	.47	.46	.45	.44	.43	.43	.43	.44		
	*112*089*064*037*008					979	948	916	885	853	821	791	755	728	702	680	659	643	629	620	614	612	614	621		
1300	.81	.79	.77	.75	.73	.70	.68	.65	.63	.60	.58	.55	.53	.51	.49	.47	.46	.44	.43	.43	.42	.42	.42	.43		
	*097*073*047*019					990	960	929	897	865	833	801	770	735	708	683	661	641	625	612	603	598	597	599	606	
15	.80	.78	.76	.73	.71	.69	.66	.64	.61	.59	.56	.54	.51	.49	.47	.45	.44	.43	.42	.41	.41	.41	.41	.42		
	*077*052*026					998	968	937	906	873	841	809	777	746	711	684	660	638	618	603	590	582	578	577	581	588
30	.78	.76	.74	.72	.69	.67	.64	.62	.59	.56	.54	.52	.49	.47	.45	.44	.42	.41	.40	.40	.39	.39	.39	.40		
	*053*028*000					972	942	910	878	845	813	780	749	718	683	656	632	610	592	577	565	557	553	554	558	566
45	.76	.74	.72	.69	.67	.64	.62	.59	.57	.54	.52	.49	.47	.45	.43	.41	.40	.39	.38	.37	.37	.37	.38	.38		
	*025					999	971	942	911	879	847	814	781	748	716	686	651	625	601	579	561	547	536	529	531	539

SEP-DEC 40 N TABLE B-1 SOLAR PARAMETERS COS Z *** SIGNIFIES COS Z = 1.
X0 (N/M=+2.) ADD 1000 TO VALUES PRECEDED BY .

MST	SEP					OCT					DATE					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1400	.74	.72	.69	.67	.64	.62	.59	.57	.54	.52	.49	.47	.43	.42	.40	.39	.38	.36	.36	.35	.35	.35	.35	.36	
	993	966	938	908	877	844	811	778	745	712	680	659	615	589	565	545	527	513	503	493	494	495	500	509	
15	.71	.69	.66	.64	.62	.59	.56	.54	.51	.49	.46	.44	.41	.39	.36	.36	.35	.34	.33	.33	.32	.33	.33	.34	
	957	930	901	870	838	805	772	738	705	672	640	610	576	550	527	506	489	476	466	460	458	460	466	475	
30	.68	.66	.63	.61	.58	.56	.53	.51	.48	.46	.43	.41	.38	.36	.35	.33	.32	.31	.30	.30	.30	.30	.30	.31	
	918	890	860	829	796	763	729	695	662	629	597	566	533	507	484	465	448	435	426	421	419	422	428	438	
45	.65	.63	.60	.58	.55	.53	.50	.47	.45	.42	.40	.37	.35	.33	.31	.30	.29	.28	.27	.27	.27	.27	.27	.28	
	875	846	816	784	751	717	683	649	615	582	550	520	486	461	439	419	404	391	382	373	377	380	387	397	
1500	.61	.59	.57	.54	.52	.49	.46	.44	.41	.39	.36	.34	.31	.30	.28	.27	.25	.24	.24	.24	.23	.24	.24	.25	
	829	799	768	735	703	668	634	599	565	532	500	470	437	412	390	371	356	344	336	332	331	335	342	353	
15	.58	.55	.53	.50	.48	.45	.42	.40	.37	.35	.32	.30	.28	.26	.24	.23	.22	.21	.20	.20	.20	.20	.21	.22	
	779	750	718	685	651	616	581	546	512	479	447	417	385	360	339	320	305	294	287	283	283	287	295	306	
30	.54	.52	.49	.46	.44	.41	.38	.36	.33	.31	.28	.26	.24	.22	.20	.19	.18	.17	.17	.15	.16	.17	.17	.18	
	727	697	665	631	596	561	526	491	457	423	392	362	330	305	284	266	252	241	234	231	232	236	244	256	
45	.50	.47	.45	.42	.40	.37	.34	.32	.29	.26	.24	.22	.20	.18	.16	.15	.14	.13	.13	.13	.13	.13	.14	.14	
	673	641	609	574	539	504	468	433	399	365	334	304	272	248	228	210	196	186	180	177	178	183	191	203	
1600	.46	.43	.41	.38	.35	.33	.30	.27	.25	.22	.20	.18	.15	.14	.12	.11	.10	.09	.09	.03	.03	.09	.10	.11	
	615	584	550	516	480	444	408	373	338	305	274	244	213	189	169	152	139	129	123	121	122	127	136	148	
15	.41	.39	.36	.33	.31	.28	.25	.23	.20	.18	.15	.13	.11	.09	.08	.07	.06	.05	.05	.04	.05	.05	.06	.06	
	556	524	490	455	419	382	346	311	276	243	212	182	151	128	109	92	79	070	064	062	054	070	079	091	
30	.37	.34	.32	.29	.26	.23	.21	.18	.15	.13	.11	.09	.06	.05	.03	.02	.01	.01	.00	.00	.00	.01	.01	.02	
	495	462	427	392	355	319	282	247	212	179	148	119	088	055	046	030	017	009	003	002	004	010	019	032	
45	.32	.30	.27	.24	.21	.19	.16	.13	.11	.08	.06	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	432	398	363	327	291	254	217	181	147	114	083	054	022	001	000	000	000	000	000	000	000	000	000	000	

*** SIGNIFIES COS Z =1.
ADD 1000 TO VALUES PRECEDED BY *

SEP-DEC 40 N

SOLAR PARAMETERS

TABLE B-1

COS Z
XO (W/N**2.)

MST	SEP					OCT					DATE					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1700	.27	.25	.22	.19	.17	.14	.11	.08	.06	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	368	334	298	261	224	187	151	115	080	047	016	000	000	000	000	000	000	000	000	000	000	000	000	000	
15	.22	.20	.17	.14	.12	.09	.06	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	302	268	232	195	157	120	083	047	012	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
30	.18	.15	.12	.09	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	236	201	164	127	090	052	015	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
45	.13	.10	.07	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	169	134	097	059	021	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
1800	.08	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	102	066	029	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
15	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	035	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

SEP-DEC 40 N

TABLE B-1 SOLAR PARAMETERS

XO (W/M**2.)

COS Z

MST	DATE												APR												
	JAN			FEB			MAR			APR			APR			APR			APR			APR			
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
0800	.29	.28	.28	.28	.29	.29	.30	.31	.32	.33	.34	.36	.37	.40	.42	.44	.46	.47	.49	.51	.52	.53	.54	.55	
	406	403	400	401	404	410	419	433	447	464	482	502	537	559	582	605	627	648	672	690	705	721	733	743	
15	.34	.33	.33	.33	.34	.34	.35	.36	.37	.38	.40	.41	.41	.46	.47	.49	.51	.53	.54	.55	.57	.58	.59	.60	
	475	472	470	471	475	482	492	506	521	538	557	577	611	634	656	679	700	721	744	761	776	790	801	810	
30	.38	.38	.38	.38	.39	.39	.40	.41	.42	.43	.45	.46	.47	.51	.53	.54	.56	.58	.59	.61	.62	.63	.64	.65	
	541	538	537	539	544	551	561	577	592	609	628	648	683	705	727	749	770	790	812	824	844	856	867	875	
45	.43	.43	.43	.43	.43	.44	.45	.46	.47	.48	.50	.51	.51	.56	.57	.59	.61	.62	.64	.65	.67	.68	.69	.69	
	603	601	601	604	609	617	628	644	660	677	696	717	751	773	795	817	837	857	878	894	907	919	929	937	
0900	.47	.47	.47	.47	.48	.48	.49	.50	.52	.53	.54	.56	.59	.60	.62	.64	.65	.67	.69	.70	.71	.72	.73	.74	
	663	661	662	665	671	680	691	708	724	742	762	782	816	838	860	881	901	919	940	955	968	979	988	995	
15	.51	.51	.51	.51	.52	.52	.53	.55	.56	.57	.59	.60	.63	.65	.67	.68	.70	.71	.73	.74	.75	.76	.77	.78	
	718	717	719	723	730	739	751	768	785	803	823	844	878	899	920	941	960	978	998	012	024	034	043	049	
30	.54	.54	.55	.55	.56	.56	.57	.59	.60	.61	.63	.65	.67	.69	.71	.72	.74	.75	.77	.78	.79	.80	.81	.81	
	770	770	772	776	784	794	807	825	842	861	880	901	935	956	977	997	016	033	052	065	078	086	093	099	
45	.58	.58	.58	.58	.59	.60	.61	.62	.64	.65	.67	.68	.71	.73	.74	.76	.78	.79	.81	.82	.83	.84	.84	.85	
	818	818	821	826	835	845	859	877	895	914	934	954	988	009	029	049	067	083	101	114	125	133	140	145	
1000	.61	.61	.61	.62	.62	.63	.64	.66	.67	.69	.70	.72	.75	.76	.78	.79	.81	.82	.84	.85	.86	.87	.87	.88	
	861	862	865	872	881	892	906	925	943	962	983	003	037	057	077	096	114	129	146	153	168	176	182	186	
15	.64	.64	.64	.65	.65	.66	.67	.69	.70	.72	.73	.75	.79	.79	.81	.83	.84	.85	.87	.88	.89	.90	.90	.91	
	900	901	906	913	923	935	949	969	987	007	027	048	081	101	120	139	155	171	187	193	207	214	220	223	
30	.66	.66	.67	.67	.68	.69	.70	.72	.73	.75	.76	.78	.81	.82	.84	.85	.87	.88	.89	.90	.91	.92	.93	.93	
	934	936	941	949	960	972	987	008	026	046	066	087	120	140	159	176	193	207	222	233	241	248	253	256	
45	.68	.68	.69	.69	.70	.71	.72	.74	.76	.77	.79	.80	.83	.85	.86	.88	.89	.90	.92	.93	.93	.94	.95	.95	
	963	966	972	981	992	005	021	042	061	081	101	122	154	173	192	209	225	238	253	262	270	276	280	283	

*** SIGNIFIES COS Z =1.
ADD 1000 TO VALUES PRECEDED BY *

SOLAR PARAMETERS
COS Z
XO (W/M**2.)

TABLE B-1

JAN-APR 20 N

MST	JAN							FEB							DATE							MAR							APR						
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30				
1100	.70	.70	.71	.71	.72	.73	.74	.76	.78	.79	.81	.82		.76	.78	.79	.81	.82		.85	.87	.88	.90	.91	.92		.93	.94	.95	.96	.96	.97			
988	991	998	998	998	998	998	998	998	998	998	998	998	998	998	998	998	998	998	998	998	998	998	998	998	998	998	998	998	998	998	998	998			
15	.71	.71	.72	.73	.74	.75	.76	.78	.79	.81	.83	.84		.78	.79	.81	.83	.84		.87	.88	.90	.91	.92	.94		.95	.96	.97	.97	.98	.98			
907	911	918	929	941	956	973		994	114	134	154	175		207	225	243	259	273	285	297	313	321	327	331	333	335	341	341	341	341	341	341			
30	.72	.73	.73	.74	.75	.76	.77	.79	.81	.82	.84	.85		.79	.81	.82	.84	.85		.88	.90	.91	.92	.94	.95		.96	.97	.98	.98	.99	.99			
9021	928	934	945	958	974	991		1013	113	133	153	173	194	205	225	243	260	275	289	301	313	321	327	331	333	335	341	341	341	341	341	341			
45	.73	.73	.74	.75	.76	.77	.78	.80	.82	.83	.85	.86		.80	.82	.83	.85	.86		.83	.90	.92	.93	.94	.96		.97	.97	.98	.99	.99	.99			
9030	935	944	956	970	986	103		106	126	146	166	187	207	218	238	255	272	287	300	311	323	329	335	338	341	341	341	341	341	341	341	341			
1200	.73	.74	.74	.75	.76	.77	.79	.81	.82	.84	.85	.87		.81	.82	.84	.85	.87		.89	.91	.92	.94	.95	.96		.97	.93	.98	.99	.99	.99			
9034	940	950	962	976	993	111		134	154	174	195	215		234	254	274	292	305	315	326	332	337	341	342	343	344	344	344	344	344	344	344			
15	.73	.73	.74	.75	.76	.78	.79	.81	.82	.84	.86	.87		.81	.82	.84	.86	.87		.90	.91	.92	.94	.95	.96		.97	.93	.98	.99	.99	.99			
9033	939	950	962	978	994	113		136	156	177	197	217		236	256	277	292	304	315	324	330	335	338	339	339	340	340	340	340	340	340	340			
30	.73	.73	.74	.75	.76	.77	.79	.81	.82	.84	.85	.87		.81	.82	.84	.85	.87		.89	.91	.92	.93	.94	.95		.96	.97	.98	.98	.98	.99			
9026	933	944	958	973	991	109		133	153	174	194	213		243	263	279	292	308	318	323	327	329	329	330	330	331	331	331	331	331	331	331			
45	.72	.72	.73	.74	.75	.77	.78	.80	.82	.83	.85	.86		.80	.82	.83	.85	.86		.83	.90	.91	.92	.94	.94		.95	.95	.97	.97	.97	.98			
9014	922	934	948	964	982	101		125	145	165	185	205		233	249	264	276	287	296	304	310	313	315	316	316	316	316	316	316	316	316	316			
1300	.70	.71	.72	.73	.74	.76	.77	.79	.81	.82	.84	.85		.79	.81	.82	.84	.85		.82	.89	.90	.91	.92	.93		.94	.95	.95	.96	.96	.96			
997	995	998	998	998	998	998	998	998	998	998	998	998	998	998	998	998	998	998	998	998	998	998	998	998	998	998	998	998	998	998	998	998			
15	.69	.70	.70	.72	.73	.74	.76	.78	.79	.81	.82	.84		.78	.79	.81	.82	.84		.86	.87	.89	.90	.91	.92		.92	.93	.93	.94	.94	.94			
975	984	997	997	997	997	997	997	997	997	997	997	997	997	997	997	997	997	997	997	997	997	997	997	997	997	997	997	997	997	997	997	997			
30	.67	.68	.69	.70	.71	.72	.74	.76	.77	.79	.81	.82		.76	.77	.79	.81	.82		.84	.86	.87	.88	.89	.89		.90	.91	.91	.92	.92	.92			
948	957	971	986	994	994	994	994	994	994	994	994	994	994	994	994	994	994	994	994	994	994	994	994	994	994	994	994	994	994	994	994	994			
45	.65	.65	.66	.68	.69	.70	.72	.74	.75	.77	.78	.80		.74	.75	.77	.78	.80		.82	.83	.84	.85	.86	.87		.88	.83	.83	.89	.89	.90			
918	925	940	956	974	993	1013		1037	1058	1078	1097	1115		1141	1161	1181	1199	1215	1231	1247	1263	1279	1295	1311	1327	1343	1359	1375	1391	1407	1423	1439			

JAN-APR 20 N TABLE B-1 SOLAR PARAMETERS COS Z *** SIGNIFIES COS Z = 1.
 ADD 1000 TO VALUES PRECEDED BY .

MST	JAN					FEB					MAR					APR				
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1400	.62 .63 .64 .65 .66 .68 .69 879 889 904 921 939 958 978							.71 .73 .74 .76 .77 *003*023*043*062*079						.79 .81 .82 .83 .84 .84 *105*113*131*141*150*157						
15	.59 .60 .61 .62 .64 .65 .67 838 848 864 880 899 918 938							.68 .70 .72 .73 .74 963 983*003*021*039						.76 .78 .79 .80 .80 .81 *064*077*089*099*107*114						
30	.56 .57 .58 .59 .61 .62 .63 792 803 819 836 855 874 894							.65 .67 .68 .70 .71 919 939 958 977 994						.73 .74 .75 .76 .77 .78 *018*031*042*052*060*066						
45	.52 .53 .54 .56 .57 .59 .60 742 754 769 787 806 825 846							.62 .63 .65 .66 .68 870 890 909 927 944						.70 .71 .72 .72 .73 .74 968 980 991*000*008*014						
1500	.49 .49 .51 .52 .53 .55 .56 688 700 716 734 753 773 793							.58 .60 .61 .62 .64 817 837 855 873 890						.66 .67 .68 .68 .69 .70 913 925 936 944 952 957						
15	.45 .45 .47 .48 .49 .51 .52 631 643 659 677 696 716 736							.54 .55 .57 .58 .60 760 779 798 815 831						.61 .62 .63 .64 .65 .65 854 866 876 885 892 897						
30	.40 .41 .42 .44 .45 .46 .48 570 582 598 616 635 655 675							.50 .51 .53 .54 .55 699 718 736 753 769						.57 .58 .59 .59 .60 .61 791 803 812 821 828 833						
45	.36 .37 .38 .39 .40 .42 .43 505 517 534 552 572 591 611							.45 .47 .48 .49 .50 634 653 671 688 703						.52 .53 .54 .55 .55 .56 725 736 745 754 760 766						
1600	.31 .32 .33 .34 .36 .37 .39 438 450 467 485 504 524 543							.40 .42 .43 .44 .45 567 585 603 619 634						.47 .48 .49 .50 .50 .51 655 666 675 683 690 695						
15	.26 .27 .28 .29 .31 .32 .34 368 380 397 415 434 454 473							.35 .37 .38 .39 .40 496 514 531 547 562						.42 .43 .44 .44 .45 .45 582 593 602 610 616 622						
30	.21 .22 .23 .24 .26 .27 .28 295 308 325 343 362 381 400							.30 .31 .33 .34 .35 422 440 457 472 487						.36 .37 .38 .39 .39 .40 506 517 526 534 540 546						
45	.16 .17 .18 .19 .20 .22 .23 221 233 250 268 287 306 324							.25 .26 .27 .28 .29 346 364 380 395 409						.31 .32 .32 .33 .34 .34 429 439 448 455 462 467						

JAN-APR 20 N TABLE B-1 SOLAR PARAMETERS COS Z XO (M/M*2.) *** SIGNIFIES COS Z = 1. ADD 1000 TO VALUES PRECEDED BY *

MST	JAN							FEB							DATE							MAR							APR						
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30				
1700	.10	.11	.12	.14	.15	.16	.18	.19	.20	.22	.23	.24	.25	.26	.27	.27	.28	.28	.29	.29	.23	.30	.30	.31	.31	.394	.393	.403	.408	.413	.418				
	144	157	174	192	210	229	247	268	285	301	316	330	349	359	367	375	381	387																	
15	.05	.06	.07	.08	.09	.11	.12	.13	.15	.16	.17	.18	.19	.20	.21	.21	.22	.22	.23	.23	.24	.24	.25	.25	.312	.318	.323	.328	.334	.340					
	067	079	096	114	132	150	168	189	205	221	235	249	267	277	285	293	300	306																	
30	.00	.00	.01	.02	.04	.05	.06	.08	.09	.10	.11	.12	.13	.14	.15	.15	.16	.16	.17	.17	.17	.18	.18	.19	.19	.230	.235	.241	.247	.254	.260				
	000	000	017	034	052	070	087	108	124	139	153	166	184	193	202	210	216	223																	
45	.00	.00	.00	.00	.00	.00	.00	.02	.03	.04	.05	.06	.07	.08	.09	.09	.10	.10	.11	.11	.11	.12	.12	.13	.13	.147	.153	.159	.166	.173	.180				
	000	000	000	000	000	000	006	025	041	056	070	082	100	109	118	125	133	139																	
1800	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.02	.02	.03	.04	.04	.05	.05	.05	.06	.06	.07	.07	.063	.070	.077	.084	.092	.100				
	000	000	000	000	000	000	000	000	000	000	000	000	015	024	033	041	048	055																	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.01	.000	.000	.000	.002	.011	.019					
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000																	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.000	.000	.000	.000	.000	.000					
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000																	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.000	.000	.000	.000	.000	.000					
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000																	

.. SIGNIFIES COS Z =1.
ADD 1000 TO VALUES PRECEDED BY *

SOLAR PARAMETERS
X0 (W/M**2.)

TABLE B-1

20 N

JAN-APR

MST	MAY							JUN							JUL							AUG						
	DATE							DATE							DATE							DATE						
	5	10	15	20	25	30		5	10	15	20	25	30		5	10	15	20	25	30		5	10	15	20	25	30	
0500	.00	.00	.00	.00	.00	.00		.00	.00	.00	.00	.00	.00		.00	.00	.00	.00	.00	.00		.00	.00	.00	.00	.00	.00	
15	.00	.00	.00	.00	.00	.00		.00	.00	.00	.00	.00	.00		.00	.00	.00	.00	.00	.00		.00	.00	.00	.00	.00	.00	
30	.00	.00	.01	.02	.02	.02		.02	.02	.02	.02	.02	.01		.00	.00	.00	.00	.00	.00		.00	.00	.00	.00	.00	.00	
45	.05	.06	.07	.07	.08	.08		.08	.08	.08	.08	.07	.07		.06	.05	.05	.04	.03	.03		.02	.01	.01	.00	.00	.00	
0600	.11	.12	.12	.13	.13	.14		.14	.14	.13	.13	.13	.12		.12	.11	.10	.10	.09	.09		.08	.07	.07	.06	.06	.05	
15	.17	.18	.18	.19	.19	.19		.19	.19	.19	.19	.18	.18		.17	.17	.16	.16	.15	.14		.14	.13	.13	.12	.12	.11	
30	.23	.23	.24	.25	.25	.25		.25	.25	.25	.24	.24	.24		.23	.22	.22	.21	.21	.20		.20	.19	.19	.18	.18	.17	
45	.28	.29	.30	.30	.31	.31		.31	.31	.30	.30	.30	.29		.29	.28	.28	.27	.26	.26		.25	.25	.24	.24	.24	.23	
0700	.34	.35	.35	.36	.36	.36		.36	.36	.36	.36	.35	.35		.34	.34	.33	.33	.32	.32		.31	.31	.30	.30	.30	.29	
15	.40	.40	.41	.41	.42	.42		.42	.41	.41	.41	.41	.40		.40	.39	.39	.38	.38	.37		.37	.35	.35	.36	.35	.35	
30	.45	.46	.46	.47	.47	.47		.47	.47	.47	.46	.46	.45		.45	.44	.44	.44	.43	.43		.42	.42	.42	.41	.41	.41	
45	.51	.51	.52	.52	.52	.52		.52	.52	.52	.51	.51	.51		.50	.50	.49	.49	.48	.48		.48	.47	.47	.47	.47	.46	

MAY-AUG 20 N TABLE B-1 SOLAR PARAMETERS COS Z ... SIGNIFIES COS Z = 1.
 XO (W/M=2.) ADD 1000 TO VALUES PRECEDED BY .

MST	MAY					JUN					JUL					AUG								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30						
0800	.56	.56	.57	.57	.57	.57	.57	.57	.57	.56	.56	.56	.55	.55	.54	.54	.54	.53	.53	.53	.52	.52	.52	.52
	751	756	760	762	763	762	759	755	751	746	741	736	730	725	720	716	712	708	704	702	700	698	696	695
15	.61	.61	.62	.62	.62	.62	.62	.62	.61	.61	.61	.60	.60	.60	.59	.59	.59	.58	.58	.58	.57	.57	.57	.57
	818	823	826	827	827	826	822	819	815	810	805	800	795	790	786	782	778	775	772	770	766	767	765	764
30	.66	.66	.66	.67	.67	.67	.67	.66	.66	.66	.65	.65	.65	.64	.64	.64	.63	.63	.63	.63	.62	.62	.62	.62
	882	886	888	889	889	887	884	880	876	871	866	861	857	852	848	845	842	839	837	835	834	833	832	831
45	.70	.71	.71	.71	.71	.71	.71	.71	.70	.70	.70	.70	.69	.69	.69	.68	.68	.68	.68	.67	.67	.67	.67	.67
	942	946	948	948	947	945	942	938	933	929	924	920	915	912	908	905	902	900	898	897	895	896	895	894
0900	.74	.75	.75	.75	.75	.75	.75	.75	.75	.74	.74	.74	.73	.73	.73	.73	.72	.72	.72	.72	.72	.71	.71	.71
	999	003	004	004	003	000	996	992	988	984	979	975	971	968	965	962	960	958	957	955	955	955	954	953
15	.78	.79	.79	.79	.79	.79	.79	.79	.78	.78	.78	.78	.77	.77	.77	.77	.76	.76	.76	.75	.75	.75	.75	.75
	053	056	056	056	054	052	048	044	039	035	031	027	024	020	018	015	014	013	012	011	011	011	010	009
30	.82	.82	.83	.83	.83	.83	.82	.82	.82	.82	.82	.81	.81	.81	.81	.80	.80	.80	.80	.80	.80	.79	.79	.79
	103	104	105	104	102	099	095	091	087	083	079	075	072	069	067	065	064	063	063	063	063	062	061	061
45	.85	.86	.86	.86	.86	.86	.86	.86	.85	.85	.85	.85	.84	.84	.84	.84	.84	.84	.83	.83	.83	.83	.83	.83
	148	149	149	148	146	143	139	135	131	127	123	120	117	115	113	111	111	110	110	110	110	110	110	109
1000	.88	.89	.89	.89	.89	.89	.88	.88	.88	.88	.88	.88	.87	.87	.87	.87	.87	.87	.87	.87	.86	.86	.86	.86
	189	190	189	188	185	182	178	174	170	167	163	160	158	156	154	153	153	153	153	153	154	154	153	152
15	.91	.91	.91	.92	.92	.91	.91	.91	.91	.91	.91	.90	.90	.90	.90	.90	.90	.90	.90	.89	.89	.89	.89	.89
	225	226	225	223	221	217	213	209	206	202	199	197	194	193	192	191	191	191	192	192	193	193	192	191
30	.93	.94	.94	.94	.94	.94	.94	.93	.93	.93	.93	.93	.93	.93	.92	.92	.92	.92	.92	.92	.92	.92	.91	.91
	257	257	256	254	251	248	244	240	237	234	231	229	227	225	225	225	225	225	226	227	227	227	226	225
45	.95	.96	.96	.96	.96	.96	.96	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.94	.94	.94	.94	.94	.94	.93
	284	284	283	280	277	274	270	266	263	260	258	256	254	254	253	253	254	254	255	255	256	256	256	254

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

TABLE B-1 SOLAR PARAMETERS
COS Z
XO (W/M*2.)

MAY-AUG 20 N

MST	MAY					JUN					DATE					JUL					AUG				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1400	.87	.87	.87	.87	.88	.88	.88	.88	.88	.89	.89	.89	.89	.89	.89	.89	.89	.89	.89	.89	.89	.89	.89	.89	
	170	170*	169*	169*	168*	169	*169*	170*	171*	173*	175*	177	*169*	170*	182*	184*	185*	186*	186	*185*	182*	178*	173*	165*	156
15	.84	.84	.84	.84	.85	.85	.85	.85	.86	.86	.86	.86	.86	.86	.86	.87	.87	.86	.86	.86	.85	.85	.84	.83	
	127	127*	127*	127*	127*	128	*129*	130*	132*	134*	136*	139	*129*	130*	143*	145*	147*	148*	147	*145*	142*	138*	131*	123*	113
30	.80	.80	.81	.81	.81	.81	.82	.82	.82	.82	.83	.83	.83	.83	.83	.83	.83	.83	.83	.83	.82	.82	.81	.80	.79
	080	080*	080*	081*	081*	083	*081*	086*	088*	091*	093*	096	*081*	086*	101*	103*	104*	105*	104	*102*	099*	093*	086*	077*	066
45	.76	.77	.77	.77	.77	.78	.78	.78	.79	.79	.79	.79	.79	.79	.80	.80	.80	.80	.80	.79	.79	.78	.77	.77	.75
	029	029*	030*	031*	032*	034	*036*	038*	041*	044*	047*	049	*036*	038*	055*	056*	058*	058*	057	*054*	049*	043*	036*	026*	014
1500	.72	.73	.73	.73	.73	.74	.74	.74	.75	.75	.75	.75	.75	.75	.76	.76	.76	.76	.76	.75	.75	.74	.73	.72	.71
	973	974	976	977	979	981	984	987	990	993	996	999	*002*	004*	006*	007*	007*	005	*002*	997	990	982	971	959	959
15	.68	.68	.69	.69	.69	.69	.70	.70	.71	.71	.71	.71	.71	.71	.72	.72	.72	.72	.72	.71	.71	.70	.69	.68	.67
	914	916	918	920	922	925	928	932	935	938	942	945	948	951	952	953	952	950	946	941	933	924	913	899	899
30	.63	.64	.64	.64	.65	.65	.65	.66	.66	.67	.67	.67	.67	.68	.68	.68	.67	.67	.67	.67	.66	.65	.65	.63	.62
	852	854	856	859	862	865	869	873	877	881	885	888	891	893	895	895	894	892	887	881	873	863	851	837	837
45	.59	.59	.59	.60	.60	.60	.61	.61	.62	.62	.62	.63	.63	.63	.63	.63	.63	.63	.62	.61	.61	.60	.59	.57	.57
	787	789	792	795	799	803	808	812	816	820	824	828	831	833	834	835	833	830	825	819	809	798	785	770	770
1600	.53	.54	.54	.55	.55	.55	.56	.56	.57	.57	.58	.58	.58	.58	.58	.58	.58	.58	.57	.55	.55	.55	.54	.52	.52
	719	722	725	729	733	738	743	748	753	757	761	765	768	770	771	771	769	766	759	752	742	731	717	701	701
15	.48	.49	.49	.49	.50	.50	.51	.51	.52	.52	.53	.53	.53	.53	.53	.53	.53	.53	.52	.51	.50	.49	.48	.47	.47
	648	652	656	660	665	670	676	681	687	691	696	700	703	705	705	705	703	699	692	683	673	661	646	629	629
30	.43	.43	.44	.44	.45	.45	.46	.46	.47	.47	.47	.48	.48	.48	.48	.48	.47	.47	.47	.45	.45	.44	.43	.41	.41
	575	579	584	589	595	600	607	613	618	623	628	632	635	637	637	636	634	629	621	612	601	588	573	555	555
45	.37	.38	.38	.39	.39	.40	.40	.41	.41	.42	.42	.43	.43	.43	.43	.43	.42	.42	.41	.40	.40	.38	.37	.36	.36
	500	505	511	517	523	529	536	542	548	554	558	562	565	567	567	566	563	558	549	539	527	513	497	479	479

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

TABLE B-1 SOLAR PARAMETERS COS Z
XO (W/M*2.)

MAY-AUG 20 N

MST	DATE																									
	SEP					OCT					NOV					DEC										
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30		
0600	.05	.04	.04	.04	.03	.03	.02	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	065	060	055	050	045	039	032	024	015	004	000	000	000	000	000	000	000	000	000	000	000	000	000	000		
	15	.11	.11	.10	.10	.09	.09	.08	.08	.07	.06	.06	.05	.03	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	
30	147	143	138	134	128	122	115	107	098	088	076	062	045	029	013	000	000	000	000	000	000	000	000	000		
	229	.17	.17	.16	.16	.15	.15	.14	.13	.12	.11	.10	.09	.08	.07	.05	.04	.03	.02	.01	.00	.00	.00	.00		
	310	.23	.23	.22	.22	.22	.21	.21	.20	.19	.18	.17	.16	.15	.14	.12	.11	.10	.09	.07	.05	.04	.03	.03		
0700	45	.23	.23	.22	.22	.21	288	281	272	263	252	239	225	207	191	173	156	138	120	103	087	071	057	045	035	
	390	.29	.29	.28	.28	.27	368	361	353	343	332	319	305	286	269	252	234	216	198	180	164	149	135	123	113	
	469	.35	.34	.34	.34	.33	.33	.32	.31	.31	.30	.29	.28	382	363	346	328	310	292	274	256	240	225	211	199	190
30	545	.40	.40	.40	.39	.38	525	517	509	498	486	473	458	438	421	403	384	366	348	330	314	299	286	274	265	
	620	.46	.46	.45	.45	.44	.44	.43	.42	.42	.41	.39	.38	531	511	493	475	456	438	419	402	385	371	358	347	338
	692	.51	.51	.51	.50	.50	.49	672	664	655	644	631	617	601	581	563	544	526	507	489	471	455	441	428	417	409
15	762	.57	.56	.56	.55	.55	.54	741	733	723	712	699	684	669	648	630	611	592	573	555	538	522	508	495	485	478
	829	.62	.61	.61	.60	.60	.59	807	799	789	777	764	749	732	711	693	674	655	636	618	601	585	572	560	550	543
	892	.66	.66	.65	.65	.64	.64	870	861	850	838	825	809	793	771	753	734	715	696	678	661	645	632	621	612	605

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

SOLAR PARAMETERS
COS Z
XO (W/M**2.)

TABLE B-1

SEP-DEC 20 N

MST	SEP					OCT					DATE					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
0900	.71	.70	.70	.69	.69	.68	.67	.66	.65	.64	.63	.61	.59	.58	.56	.55	.54	.52	.51	.50	.49	.48	.47	.47	
	952	949	946	942	936	928	919	908	896	882	866	849	828	809	790	771	752	734	718	703	690	679	670	664	
15	.75	.74	.74	.73	.73	.72	.71	.70	.69	.68	.66	.65	.63	.62	.60	.59	.57	.56	.55	.54	.53	.52	.51	.51	
	*008	*005	*002	997	991	983	973	962	949	935	919	902	880	861	842	823	804	786	770	753	733	725	720	720	
30	.79	.78	.78	.77	.76	.76	.75	.74	.72	.71	.70	.68	.67	.65	.64	.62	.61	.59	.58	.57	.56	.55	.55	.55	
	*059	*057	*053	*048	*041	*033	*023	*012	998	983	967	950	926	908	889	870	852	835	819	801	782	776	771	771	
45	.82	.82	.81	.81	.80	.79	.78	.77	.76	.74	.73	.71	.70	.68	.67	.65	.64	.62	.61	.60	.59	.59	.58	.58	
	*107	*104	*100	*094	*087	*079	*068	*056	*043	*027	*011	993	971	952	932	914	895	878	863	843	838	829	822	818	
1000	.85	.85	.84	.84	.83	.82	.81	.80	.79	.77	.76	.74	.72	.71	.69	.68	.67	.65	.64	.63	.62	.62	.61	.61	
	*150	*147	*142	*136	*129	*120	*109	*097	*082	*067	*050	*032	*009	990	971	952	934	918	903	889	878	870	864	861	
15	.88	.88	.87	.86	.86	.85	.84	.82	.81	.80	.78	.77	.75	.73	.72	.70	.69	.68	.67	.65	.65	.64	.64	.64	
	*188	*185	*180	*174	*166	*156	*145	*132	*117	*101	*084	*066	*043	*024	*005	986	969	952	938	925	915	907	902	900	
30	.91	.90	.89	.89	.88	.87	.86	.85	.83	.82	.80	.79	.77	.75	.74	.72	.71	.70	.69	.68	.67	.66	.66	.66	
	*222	*218	*213	*206	*197	*187	*175	*162	*147	*131	*113	*095	*072	*053	*034	*015	998	982	968	956	946	939	935	934	
45	.93	.92	.92	.91	.90	.89	.88	.86	.85	.84	.82	.80	.79	.77	.76	.74	.73	.72	.70	.70	.69	.68	.68	.68	
	*250	*246	*240	*233	*224	*213	*201	*187	*171	*155	*137	*118	*095	*076	*057	*039	*022	*007	993	982	973	967	963	963	
1100	.95	.94	.93	.92	.91	.90	.89	.88	.86	.85	.83	.82	.80	.78	.77	.75	.74	.73	.72	.71	.70	.70	.70	.70	
	*274	*269	*263	*255	*245	*234	*221	*206	*191	*173	*155	*137	*114	*095	*076	*058	*042	*027	*014	*003	995	989	986	987	
15	.96	.95	.94	.94	.93	.91	.90	.89	.87	.86	.84	.83	.81	.79	.78	.76	.75	.74	.73	.72	.72	.71	.71	.71	
	*292	*287	*280	*271	*261	*249	*236	*221	*204	*187	*169	*150	*127	*108	*089	*072	*056	*041	*029	*019	*011	*006	*004	*006	
30	.97	.96	.95	.94	.93	.92	.91	.89	.88	.86	.85	.83	.81	.80	.78	.77	.76	.75	.74	.73	.72	.72	.72	.72	
	*305	*299	*292	*282	*272	*259	*245	*230	*213	*195	*176	*157	*134	*116	*097	*080	*065	*051	*039	*023	*023	*019	*017	*019	
45	.97	.97	.96	.95	.94	.92	.91	.90	.88	.87	.85	.83	.82	.80	.79	.77	.76	.75	.74	.73	.73	.73	.72	.73	
	*313	*308	*298	*288	*277	*264	*249	*233	*216	*198	*179	*160	*137	*118	*100	*083	*068	*055	*044	*035	*029	*026	*025	*028	

SEP-DEC 20 N TABLE B-1 SOLAR PARAMETERS COS Z ... SIGNIFIES COS Z = 1.
 ADD 1000 TO VALUES PRECEDED BY +

MST	DATE																								
	SEP					OCT					NOV					DEC									
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1500	.70	.68	.67	.65	.64	.62	.60	.58	.57	.55	.53	.52	.50	.49	.48	.47	.47	.46	.46	.43	.45	.46	.47	.47	.48
	941	925	907	887	867	846	824	802	781	760	740	721	701	687	674	664	657	652	651	651	655	662	671	682	
15	.65	.64	.62	.61	.59	.57	.55	.54	.52	.50	.49	.47	.46	.45	.44	.43	.42	.42	.42	.42	.42	.43	.43	.44	
	881	864	845	825	804	782	760	737	716	695	675	657	637	623	611	602	595	591	590	591	595	603	613	625	
30	.61	.59	.58	.56	.54	.52	.51	.49	.47	.45	.44	.42	.41	.40	.39	.38	.38	.37	.37	.37	.38	.38	.39	.40	
	817	799	779	759	737	714	692	669	648	627	607	589	570	556	545	536	530	526	526	523	533	541	551	563	
45	.56	.54	.52	.51	.49	.47	.45	.44	.42	.40	.39	.37	.36	.35	.34	.33	.33	.33	.33	.33	.33	.34	.34	.35	
	750	731	711	689	667	644	621	598	576	555	536	518	499	486	475	467	462	459	459	462	467	475	486	499	
1600	.50	.49	.47	.45	.44	.42	.40	.38	.36	.35	.33	.32	.31	.30	.29	.28	.28	.28	.28	.28	.28	.29	.30	.31	
	680	660	639	617	594	571	547	525	502	481	462	444	426	413	403	395	391	388	389	393	399	407	418	431	
15	.45	.43	.42	.40	.38	.36	.34	.33	.31	.29	.28	.27	.25	.24	.24	.23	.23	.22	.23	.23	.23	.24	.25	.26	
	607	587	565	542	519	495	471	448	426	405	386	368	351	338	328	321	317	316	317	321	327	336	348	361	
30	.39	.38	.36	.34	.32	.31	.29	.27	.25	.24	.22	.21	.20	.19	.18	.18	.17	.17	.17	.18	.18	.19	.19	.20	
	532	511	488	465	441	417	393	370	348	327	308	290	273	261	252	245	242	241	243	247	254	263	275	287	
45	.34	.32	.30	.28	.27	.25	.23	.21	.19	.18	.16	.15	.14	.13	.12	.12	.12	.12	.12	.12	.13	.13	.14	.15	
	455	433	410	386	362	337	313	290	267	246	228	211	194	182	174	168	165	164	166	171	179	188	200	214	
1700	.28	.26	.24	.23	.21	.19	.17	.15	.14	.12	.11	.09	.08	.07	.07	.06	.06	.06	.06	.07	.07	.08	.09	.10	
	376	353	330	305	280	256	231	208	186	165	146	130	113	102	094	089	086	086	089	094	102	112	124	138	
15	.22	.20	.18	.16	.15	.13	.11	.09	.08	.06	.05	.03	.02	.02	.01	.01	.00	.01	.01	.01	.02	.02	.03	.04	
	296	273	248	223	198	173	149	125	103	082	064	048	032	021	013	008	006	007	010	016	024	034	046	060	
30	.16	.14	.12	.10	.08	.07	.05	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	214	191	166	141	115	090	065	041	019	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
45	.10	.08	.06	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	132	108	083	057	031	006	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	

SEP-DEC 20 N TABLE B-1 SOLAR PARAMETERS COS Z ** SIGNIFIES COS Z =1.
XO (W/M=2.) ADD 1000 TO VALUES PRECEDED BY *

MST	DATE												DEC											
	SEP				OCT				NOV															
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1800	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
050	.025	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

*** SIGNIFIES COS Z =1.
ADD 1000 TO VALUES PRECEDED BY *

SEP-DEC 20 N

TABLE B-1 SOLAR PARAMETERS

COS Z
X0 (W/M**2.)

MST	DATE																		
	JAN				FEB				MAR				APR						
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
0600	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.05	.04	.03	.02	.02	.01	.01	.01	.00	.00	.00	.00	.00	.05	.03	.06	.07	.07	.08
30	.066	.056	.045	.034	.025	.017	.011	.006	.004	.004	.006	.009	.013	.018	.025	.033	.042	.052	.061
45	.11	.10	.09	.09	.08	.07	.07	.07	.07	.07	.07	.07	.08	.12	.12	.13	.13	.14	.14
0700	.23	.22	.21	.21	.20	.20	.19	.19	.19	.19	.19	.20	.21	.25	.25	.26	.26	.26	.26
15	.28	.28	.27	.27	.26	.26	.25	.25	.25	.26	.26	.26	.27	.31	.31	.32	.32	.32	.32
30	.34	.33	.33	.32	.32	.32	.31	.31	.31	.32	.32	.32	.33	.37	.37	.38	.38	.38	.38
45	.40	.39	.38	.38	.38	.37	.37	.37	.37	.38	.38	.38	.39	.43	.43	.44	.44	.44	.44
0800	.45	.44	.44	.43	.43	.43	.43	.43	.43	.42	.44	.44	.45	.49	.49	.49	.50	.50	.50
15	.50	.50	.49	.49	.48	.48	.48	.48	.48	.49	.49	.49	.51	.54	.54	.55	.55	.55	.55
30	.55	.55	.54	.54	.54	.54	.54	.54	.54	.54	.55	.55	.56	.60	.60	.60	.60	.60	.60
45	.60	.59	.59	.59	.59	.59	.59	.59	.59	.59	.59	.59	.61	.65	.65	.65	.65	.65	.65
	.844	.839	.833	.829	.827	.826	.826	.828	.831	.836	.841	.846	.856	.884	.885	.884	.882	.879	.874

... SIGNIFIES COS 2 *1.
ADD 1000 TO VALUES PRECEDED BY .

SOLAR PARAMETERS CCS 2
XO (W/M**2.)

TABLE B-1

JAN-APR 0

MST

DATE

JAN

FEB

MAR

APR

	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
0900	.64	.64	.63	.63	.63	.63	.63	.64	.64	.65	.65	.66	.67	.67	.67	.68	.68	.69	.69
	907	903	898	895	893	892	893	896	900	905	910	916	925	931	937	942	946	941	936
15	.68	.68	.68	.68	.68	.68	.68	.68	.69	.69	.70	.70	.71	.72	.72	.73	.73	.74	.74
	966	962	958	956	955	955	957	961	965	970	975	981	991	996	001	006	009	011	
30	.72	.72	.72	.72	.72	.72	.72	.73	.73	.74	.74	.75	.76	.76	.77	.77	.78	.78	.78
	021	018	015	013	013	014	017	021	025	031	036	042	052	057	062	066	068	070	
45	.76	.76	.75	.75	.76	.76	.76	.77	.77	.78	.78	.79	.80	.80	.81	.81	.82	.82	.81
	072	069	067	066	067	069	072	077	082	087	093	099	108	113	117	121	123	123	
1000	.79	.79	.79	.79	.79	.79	.80	.80	.81	.81	.82	.82	.83	.84	.84	.85	.85	.85	.85
	118	116	115	115	116	119	122	128	133	139	145	151	160	165	168	171	172	172	
15	.82	.82	.82	.82	.82	.82	.83	.83	.84	.85	.85	.86	.87	.87	.88	.88	.88	.88	.87
	160	158	157	158	160	164	168	174	180	186	192	198	207	211	214	216	217	216	
30	.85	.84	.85	.85	.85	.85	.86	.86	.87	.88	.88	.89	.90	.90	.91	.91	.91	.91	.90
	196	195	195	197	200	204	209	216	222	228	234	240	249	253	255	256	256	255	
45	.87	.87	.87	.87	.87	.88	.88	.89	.90	.90	.91	.91	.92	.93	.93	.94	.94	.94	.92
	227	227	228	230	234	239	244	252	258	265	271	277	285	288	290	291	291	288	
1100	.89	.89	.89	.89	.89	.90	.90	.91	.92	.92	.93	.94	.95	.95	.95	.96	.96	.96	.94
	253	254	255	259	263	268	275	282	289	296	302	308	315	319	320	320	319	316	
15	.90	.90	.90	.91	.91	.92	.92	.93	.94	.94	.95	.96	.96	.97	.97	.97	.98	.98	.95
	274	275	278	282	287	293	299	308	315	322	328	334	341	343	344	344	342	338	
30	.91	.91	.91	.92	.92	.93	.94	.94	.95	.96	.96	.97	.98	.98	.98	.99	.99	.99	.96
	289	291	294	299	305	311	319	327	335	342	348	354	360	362	363	362	359	355	
45	.92	.92	.92	.93	.93	.94	.94	.95	.96	.97	.97	.98	.99	.99	.99	***	***	***	.97
	298	301	305	311	317	324	332	341	349	356	362	368	374	375	375	374	370	365	

JAN-APR

0

TABLE B-1

SOLAR PARAMETERS
COS Z
XO (W/M**2.)*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	JAN					FEB					MAR					APR				
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1300	.66 .67 .68 .68 .69 .70 .71 935 944 956 968 980 991.002							.72 .73 .73 .74 .74 .012.020.025.029.030			.74 .74 .74 .74 .73 .73 .72 .023.021.018.010.000 989			.71 .71 .70 .69 .68 .68 975 982 949 936 924 912						
15	.62 .62 .63 .64 .65 .66 .67 873 883 895 907 919 931 941							.68 .68 .69 .69 .69 952 959 964 967 968			.69 .69 .69 .69 .68 .67 965 961 954 946 936 925			.67 .65 .65 .64 .64 .63 911 893 885 873 860 849						
30	.57 .58 .59 .60 .61 .61 .62 808 818 831 843 855 866 876							.63 .64 .64 .64 .65 887 893 898 901 902			.63 .64 .64 .64 .63 .62 893 893 887 878 868 857			.62 .61 .60 .59 .59 .58 843 830 817 805 793 782						
45	.52 .53 .54 .55 .56 .57 .57 740 750 762 775 787 798 808							.58 .59 .59 .59 .60 818 824 829 831 832			.60 .59 .59 .58 .58 .57 823 822 815 807 796 785			.56 .55 .55 .54 .53 .53 771 753 745 734 722 712						
1600	.47 .48 .49 .50 .51 .51 .52 668 678 691 703 715 726 736							.53 .54 .54 .54 .54 746 752 756 758 758			.54 .54 .54 .53 .52 .52 753 748 740 732 721 710			.51 .50 .49 .49 .48 .47 696 684 671 660 649 639						
15	.42 .43 .44 .45 .45 .46 .47 593 604 617 629 641 652 661							.48 .48 .49 .49 .49 670 676 680 682 681			.49 .48 .48 .47 .47 .46 676 670 662 652 643 632			.45 .44 .44 .43 .42 .42 618 605 594 583 572 563						
30	.37 .37 .38 .39 .40 .41 .41 516 527 540 552 564 574 583							.42 .43 .43 .43 .43 592 598 601 602 601			.43 .43 .42 .42 .41 .40 595 589 582 572 562 551			.39 .33 .38 .37 .37 .36 537 525 514 503 493 485						
45	.31 .32 .33 .33 .34 .35 .36 437 447 460 472 484 494 503							.36 .37 .37 .37 .37 511 516 519 520 519			.37 .37 .36 .35 .35 .34 513 506 498 489 479 468			.33 .33 .32 .31 .31 .30 454 443 432 422 412 404						
1700	.25 .26 .27 .28 .29 .29 .30 356 366 379 391 402 412 421							.30 .31 .31 .31 .31 429 433 436 436 434			.31 .30 .30 .29 .29 .28 427 421 413 404 393 382			.27 .25 .26 .25 .24 .24 369 358 348 338 329 322						
15	.19 .20 .21 .22 .23 .23 .24 273 283 296 308 319 328 336							.24 .25 .25 .25 .25 344 348 350 350 348			.25 .24 .24 .23 .22 .22 341 334 326 316 306 296			.21 .20 .19 .19 .18 .18 283 272 262 253 245 238						
30	.13 .14 .15 .16 .17 .17 .18 189 199 212 223 234 243 251							.18 .19 .19 .19 .19 257 261 263 262 260			.18 .18 .17 .17 .16 .15 252 245 237 228 218 207			.14 .14 .13 .12 .12 .11 195 185 176 167 160 154						
45	.07 .08 .09 .10 .11 .11 .12 104 115 127 138 148 157 164							.12 .12 .12 .12 .12 170 173 174 174 171			.12 .11 .11 .10 .09 .09 163 156 147 138 128 118			.08 .07 .07 .06 .06 .05 106 097 088 081 074 069						

*** SIGNIFIES COS Z =1.
ADD 1000 TO VALUES PRECEDED BY *

JAN-APR0TABLE B-1SOLAR PARAMETERSCOS Z
X0 (W/M**2.)

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

SOLAR PARAMETERS COS Z
XO (W/M**2.)

TABLE B-1

JAN-APR 0

MST	MAY					JUN					JUL					AUG								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
0600	.02	.02	.02	.02	.01	.01	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	020	021	021	020	018	015	009	004	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.08	.08	.08	.08	.08	.07	.07	.06	.06	.06	.05	.05	.04	.04	.04	.04	.04	.04	.04	.04	.04	.05	.06	.06
	104	105	104	103	100	096	090	084	079	073	067	062	057	053	049	047	046	047	049	053	058	065	073	083
30	.14	.14	.14	.14	.14	.13	.13	.12	.12	.12	.11	.11	.10	.10	.10	.10	.10	.10	.10	.10	.11	.11	.12	.13
	188	188	187	184	181	176	170	164	158	152	146	141	136	132	130	128	128	129	132	137	143	150	159	169
45	.20	.20	.20	.20	.20	.19	.19	.18	.18	.17	.17	.17	.16	.16	.16	.16	.16	.16	.16	.17	.17	.18	.18	.19
	272	271	269	265	261	256	249	243	237	231	225	220	215	212	209	208	209	211	215	220	227	235	244	255
0700	.26	.26	.26	.26	.26	.25	.25	.24	.24	.23	.23	.23	.22	.22	.22	.22	.22	.22	.22	.23	.23	.24	.25	.25
	354	352	349	345	340	335	327	321	314	308	303	298	293	290	288	288	289	291	296	302	310	318	328	339
15	.32	.32	.32	.32	.31	.31	.30	.30	.30	.29	.29	.28	.28	.28	.28	.28	.28	.28	.28	.29	.29	.30	.31	.31
	435	432	428	424	418	412	404	397	391	384	379	374	370	367	366	366	368	371	376	383	391	400	411	423
30	.38	.38	.38	.37	.37	.37	.36	.36	.35	.35	.34	.34	.34	.34	.33	.33	.34	.34	.34	.35	.35	.36	.37	.38
	513	510	506	500	494	487	479	472	465	455	454	449	445	443	442	443	445	448	455	462	471	481	492	504
45	.44	.44	.43	.43	.43	.42	.42	.41	.41	.40	.40	.39	.39	.39	.39	.39	.40	.40	.40	.41	.41	.42	.43	.43
	590	586	581	575	568	561	552	545	538	532	526	522	519	517	516	517	520	524	532	539	549	559	571	583
0800	.49	.49	.49	.48	.48	.47	.47	.46	.46	.45	.45	.45	.45	.44	.44	.45	.45	.45	.46	.46	.47	.48	.48	.49
	664	659	653	647	639	632	623	615	608	602	597	593	590	588	588	590	593	598	606	614	624	635	647	660
15	.55	.54	.54	.54	.53	.53	.52	.51	.51	.51	.50	.50	.50	.50	.50	.50	.50	.50	.51	.52	.52	.53	.54	.55
	735	730	723	716	708	700	691	683	676	670	665	661	656	657	658	660	664	669	678	687	697	708	721	734
30	.60	.59	.59	.59	.58	.58	.57	.56	.56	.56	.55	.55	.55	.55	.55	.55	.55	.56	.56	.57	.57	.58	.59	.60
	803	797	790	782	774	765	756	748	741	735	730	726	724	724	725	727	732	737	747	755	767	779	791	804
45	.65	.64	.64	.63	.63	.62	.62	.61	.61	.60	.60	.60	.60	.59	.59	.60	.60	.60	.61	.62	.62	.63	.64	.65
	868	861	853	845	836	827	817	810	803	797	792	789	787	787	788	791	796	803	812	822	833	845	858	872

TABLE 8-1 SOLAR PARAMETERS COS Z
MAY-AUG 0
** SIGNIFIES COS Z = 1.
X0 (W/M**2.)
ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					JUL					AUG				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30		
0900	.69	.69	.68	.68	.67	.67	.66	.65	.65	.65	.64	.64	.64	.64	.64	.65	.65	.65	.66	.65
	929	921	913	904	895	886	876	868	861	855	851	848	846	846	838	852	857	864	875	885
15	.73	.73	.72	.72	.71	.71	.70	.70	.69	.69	.68	.68	.68	.68	.68	.69	.69	.69	.70	.71
	986	977	968	959	950	940	930	922	915	910	906	903	902	902	905	909	915	922	933	944
30	.77	.77	.76	.76	.75	.74	.74	.73	.73	.73	.72	.72	.72	.72	.72	.73	.73	.74	.74	.75
	.038	.029	.020	.010	.001	.991	.981	.973	.966	.961	.957	.954	.954	.955	.958	.962	.968	.976	.988	.995
45	.81	.80	.80	.79	.79	.78	.77	.77	.76	.76	.76	.76	.75	.76	.76	.76	.77	.77	.78	.79
	.087	.077	.067	.057	.047	.038	.027	.019	.013	.007	.004	.002	.001	.003	.006	.011	.018	.026	.038	.049
1000	.84	.83	.83	.82	.82	.81	.80	.80	.80	.79	.79	.79	.79	.79	.79	.80	.80	.81	.81	.82
	.130	.120	.110	.099	.089	.080	.069	.061	.055	.050	.046	.045	.045	.047	.050	.056	.063	.071	.084	.095
15	.87	.86	.86	.85	.84	.84	.83	.83	.82	.82	.82	.82	.82	.82	.82	.83	.83	.84	.85	.85
	.169	.159	.148	.137	.127	.117	.106	.099	.092	.088	.085	.083	.084	.086	.090	.096	.103	.112	.125	.135
30	.89	.89	.88	.88	.87	.86	.86	.85	.85	.85	.84	.84	.84	.85	.85	.85	.85	.86	.87	.88
	.203	.192	.181	.170	.159	.149	.139	.131	.125	.121	.118	.117	.118	.121	.125	.131	.139	.148	.161	.173
45	.92	.91	.90	.90	.89	.88	.88	.87	.87	.87	.87	.87	.87	.87	.87	.88	.88	.89	.90	.90
	.231	.220	.209	.198	.187	.177	.167	.159	.154	.149	.147	.146	.148	.151	.156	.162	.170	.180	.192	.204
1100	.93	.93	.92	.91	.91	.90	.90	.89	.89	.89	.88	.88	.89	.89	.89	.90	.90	.91	.92	.92
	.255	.243	.231	.220	.209	.200	.189	.182	.177	.173	.171	.171	.172	.176	.181	.188	.196	.206	.213	.231
15	.95	.94	.93	.93	.92	.91	.91	.90	.90	.90	.90	.90	.90	.90	.90	.91	.91	.92	.93	.94
	.273	.261	.249	.238	.227	.217	.207	.200	.195	.191	.190	.190	.192	.196	.201	.208	.217	.227	.240	.252
30	.96	.95	.94	.94	.93	.92	.92	.91	.91	.91	.91	.91	.91	.91	.92	.92	.93	.94	.94	.95
	.285	.273	.261	.250	.239	.229	.220	.213	.208	.205	.203	.204	.206	.210	.216	.224	.232	.242	.256	.267
45	.96	.95	.95	.94	.93	.93	.92	.92	.92	.92	.92	.92	.92	.92	.93	.93	.94	.94	.95	.96
	.292	.280	.268	.256	.246	.236	.227	.220	.216	.213	.212	.213	.216	.220	.226	.234	.243	.253	.266	.277

TABLE B-1 SOLAR PARAMETERS COS Z XO (W/M**2.) *** SIGNIFIES COS Z = 1. ADD 1000 TO VALUES PRECEDED BY *

MST	MAY							JUN							JUL							AUG						
	5	10	15	20	25	30		5	10	15	20	25	30		5	10	15	20	25	30		5	10	15	20	25	30	
1200	.96	.95	.95	.94	.94	.93		.92	.92	.92	.92	.92	.92		.92	.93	.93	.93	.94	.95		.96	.95	.97	.97	.98	.98	.99
	.294	.281	.269	.258	.247	.238		.229	.223	.219	.216	.216	.217		.220	.225	.231	.239	.248	.258		.271	.282	.294	.305	.316	.327	
15	.96	.95	.94	.94	.93	.93		.92	.92	.92	.92	.92	.92		.92	.92	.93	.93	.94	.95		.95	.95	.97	.97	.98	.99	
	.290	.277	.265	.254	.243	.234		.226	.220	.216	.214	.214	.215		.219	.224	.230	.238	.247	.257		.270	.281	.293	.304	.314	.324	
30	.95	.94	.94	.93	.93	.92		.92	.91	.91	.91	.91	.91		.92	.92	.92	.93	.94	.94		.95	.95	.96	.97	.97	.98	
	.280	.268	.256	.244	.234	.226		.217	.212	.208	.207	.207	.209		.212	.218	.224	.233	.242	.252		.264	.275	.281	.297	.307	.316	
45	.94	.93	.93	.92	.91	.91		.91	.90	.90	.90	.90	.90		.91	.91	.92	.92	.93	.93		.94	.95	.95	.96	.96	.97	
	.265	.252	.241	.230	.220	.211		.203	.198	.195	.194	.195	.197		.201	.206	.213	.222	.231	.241		.253	.264	.274	.284	.293	.302	
1300	.93	.92	.91	.91	.90	.90		.89	.89	.89	.89	.89	.89		.89	.90	.90	.91	.92	.92		.93	.91	.94	.95	.95	.95	
	.245	.232	.220	.210	.200	.192		.184	.180	.177	.176	.177	.180		.184	.190	.197	.205	.214	.224		.236	.245	.255	.266	.275	.282	
15	.91	.90	.89	.89	.88	.88		.87	.87	.87	.87	.87	.87		.88	.88	.89	.89	.90	.91		.91	.92	.92	.93	.93	.94	
	.219	.206	.195	.184	.175	.168		.161	.156	.154	.154	.155	.158		.162	.168	.176	.184	.193	.202		.214	.224	.233	.242	.250	.258	
30	.88	.88	.87	.86	.86	.86		.85	.85	.85	.85	.85	.85		.86	.86	.87	.87	.88	.89		.89	.90	.90	.91	.91	.91	
	.188	.176	.164	.154	.145	.138		.132	.128	.126	.126	.128	.131		.136	.142	.149	.157	.166	.176		.187	.195	.205	.213	.221	.227	
45	.86	.85	.84	.84	.83	.83		.83	.82	.82	.83	.83	.83		.83	.84	.84	.85	.86	.86		.87	.87	.87	.88	.88	.89	
	.152	.140	.129	.119	.111	.104		.096	.095	.093	.094	.096	.099		.104	.110	.118	.126	.135	.144		.155	.164	.172	.179	.186	.192	
1400	.83	.82	.81	.81	.80	.80		.80	.80	.80	.80	.80	.80		.81	.81	.82	.82	.83	.83		.84	.81	.85	.85	.86	.86	
	.111	.099	.088	.079	.071	.065		.059	.057	.056	.057	.059	.063		.068	.074	.082	.090	.098	.107		.117	.125	.133	.140	.146	.151	
15	.79	.79	.78	.77	.77	.77		.77	.76	.76	.77	.77	.77		.77	.78	.79	.79	.80	.80		.81	.81	.82	.82	.82	.82	
	.065	.053	.043	.034	.027	.021		.016	.014	.014	.015	.018	.022		.027	.034	.041	.049	.057	.066		.075	.083	.090	.096	.101	.105	
30	.75	.75	.74	.74	.73	.73		.73	.73	.73	.73	.73	.74		.73	.75	.75	.76	.76	.77		.77	.75	.78	.78	.78	.79	
	.014	.004	.994	.985	.979	.973		.969	.967	.967	.969	.972	.976		.982	.968	.966	.966	.966	.966		.929	.933	.942	.948	.952	.955	
45	.71	.71	.70	.70	.69	.69		.69	.69	.69	.69	.70	.70		.70	.71	.71	.72	.72	.73		.74	.71	.74	.74	.74	.74	
	.960	.949	.940	.932	.926	.921		.916	.916	.917	.919	.922	.927		.932	.939	.946	.954	.961	.969		.978	.984	.990	.995	.998	.000	

... SIGNIFIES COS 2 = 1.
ADD 1000 TO VALUES PRECEDED BY .

TABLE B-1 SCALAR PARAMETERS COS 2
X0 (W/M-2.)

MAY-AUG 0

MST	MAY					JUN					JUL					AUG									
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30							
1500	.67	.66	.66	.66	.65	.65	.65	.65	.65	.65	.66	.66	.60	.67	.67	.68	.68	.69	.69	.923	.923	.933	.937	.940	.941
15	.62	.62	.61	.61	.61	.61	.60	.61	.61	.61	.61	.62	.62	.63	.63	.64	.64	.64	.65	.65	.65	.65	.65	.65	
30	.57	.57	.56	.56	.56	.56	.56	.56	.56	.56	.57	.57	.58	.58	.58	.59	.59	.60	.60	.60	.60	.61	.61	.60	
45	.52	.52	.51	.51	.51	.51	.51	.51	.51	.51	.52	.52	.53	.53	.54	.54	.54	.55	.55	.55	.55	.55	.55	.55	
1600	.47	.46	.46	.46	.46	.46	.46	.46	.46	.46	.47	.47	.48	.48	.49	.49	.49	.50	.50	.50	.50	.50	.50	.50	
15	.41	.41	.41	.40	.40	.40	.40	.40	.41	.41	.41	.42	.42	.43	.43	.44	.44	.44	.45	.45	.45	.45	.44	.44	
30	.35	.35	.35	.35	.35	.35	.35	.35	.35	.36	.36	.36	.37	.37	.38	.38	.38	.39	.39	.39	.39	.39	.38	.38	
45	.30	.29	.29	.29	.29	.29	.29	.29	.30	.30	.30	.31	.31	.32	.32	.33	.33	.33	.33	.33	.33	.33	.32	.32	
1700	.24	.23	.23	.23	.23	.23	.23	.24	.24	.24	.25	.25	.26	.26	.26	.27	.27	.27	.27	.27	.27	.27	.26	.26	
15	.17	.17	.17	.17	.17	.17	.17	.18	.18	.18	.19	.19	.20	.20	.20	.21	.21	.21	.21	.21	.21	.21	.20	.20	
30	.11	.11	.11	.11	.11	.11	.11	.12	.12	.13	.13	.13	.14	.14	.15	.15	.15	.15	.15	.15	.15	.14	.14	.13	
45	.05	.05	.05	.05	.05	.05	.05	.06	.06	.07	.07	.07	.08	.08	.08	.09	.09	.09	.09	.09	.09	.08	.07	.07	

TABLE B-1 SOLAR PARAMETERS COS Z
 MAY-AUG 0
 ** SIGNIFIES COS Z = 1.
 ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					DATE					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
0600	.01 .01 .02 .03 .04 .05	.008 018 030 041 052 062					.05 .06 .06 .07 .07 .07	.07 .07 .06 .06 .05 .04					.04 .03 .02 .01 .00 .00	.050 038 027 013 000 000											
15	.07 .08 .09 .10 .10 .11	.095 106 118 129 141 151					.12 .12 .13 .13 .13 .13	.12 .13 .12 .12 .11 .10					.10 .09 .08 .07 .06 .05	.136 123 111 098 084 072											
30	.14 .14 .15 .16 .17 .18	.182 194 206 218 229 240					.18 .19 .19 .19 .20 .20	.19 .19 .19 .18 .17 .17					.16 .15 .14 .13 .12 .11	.220 208 195 182 169 156											
45	.20 .21 .22 .22 .23 .24	.269 281 293 305 316 327					.25 .25 .25 .26 .26 .26	.26 .25 .25 .24 .23 .22					.22 .21 .20 .19 .18 .17	.304 291 279 266 253 241											
0700	.26 .27 .28 .29 .30 .30	.354 365 379 391 403 413					.31 .31 .32 .32 .32 .32	.32 .31 .31 .30 .29 .28					.27 .27 .26 .25 .24 .23	.386 374 361 348 336 324											
15	.32 .33 .34 .35 .36 .36	.437 450 463 475 487 497					.37 .37 .38 .38 .38 .38	.37 .37 .36 .36 .35 .34					.33 .32 .31 .30 .30 .29	.467 453 442 429 417 405											
30	.39 .39 .40 .41 .42 .42	.519 532 545 557 569 580					.43 .43 .44 .44 .44 .44	.43 .43 .42 .41 .41 .40					.39 .38 .37 .36 .35 .34	.546 533 521 508 497 485											
45	.44 .45 .46 .47 .48 .48	.599 612 625 637 649 659					.49 .49 .49 .49 .49 .49	.49 .49 .48 .47 .46 .45					.44 .43 .42 .41 .41 .40	.622 610 598 585 574 563											
0800	.50 .51 .52 .53 .53 .54	.676 689 702 714 726 736					.54 .55 .55 .55 .55 .55	.54 .53 .53 .52 .51 .50					.49 .48 .47 .46 .45 .44	.696 684 672 660 649 639											
15	.56 .56 .57 .59 .59 .59	.750 763 776 789 800 810					.60 .60 .60 .60 .60 .60	.59 .59 .58 .57 .56 .55					.54 .53 .52 .51 .50 .49	.767 755 743 732 721 711											
30	.61 .62 .63 .63 .64 .64	.821 834 847 859 870 880					.65 .65 .65 .65 .65 .65	.64 .63 .63 .62 .61 .60					.59 .58 .57 .56 .55 .54	.834 822 811 800 790 781											
45	.66 .67 .67 .68 .69 .69	.888 901 914 926 937 946					.70 .70 .70 .70 .70 .69	.69 .68 .67 .66 .66 .65					.64 .63 .62 .61 .61 .60	.898 887 875 865 856 848											

SEP-DEC 0 TABLE B-1 SOLAR PARAMETERS COS Z ** SIGNIFIES COS Z = 1.
 X0 (M/HR*2.) SEE 1000 TO VALUES PRECEDED BY *

HST	SEP					OCT					NOV					DEC								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
0900	.71	.71	.72	.73	.73	.74	.74	.74	.74	.74	.74	.74	.75	.72	.71	.71	.70	.69	.68	.67	.66	.65	.65	.64
	952	965	978	989	999	009	*016	*021	*025	*026	*025	*022	*019	*008	*000	990	980	969	958	947	937	927	918	910
15	.75	.76	.77	.77	.78	.78	.78	.78	.78	.78	.78	.78	.77	.76	.75	.75	.74	.73	.72	.71	.70	.70	.69	.69
	*011	*024	*037	*048	*058	*067	*074	*079	*081	*082	*081	*077	*071	*063	*055	*046	*035	*025	*014	*003	993	984	975	969
30	.79	.80	.81	.81	.82	.82	.82	.82	.82	.82	.82	.81	.81	.80	.79	.78	.77	.76	.76	.75	.74	.73	.73	.72
	*066	*079	*091	*103	*112	*120	*127	*131	*134	*134	*132	*129	*121	*115	*106	*096	*086	*076	*066	*056	*046	*038	*030	*024
45	.83	.84	.84	.85	.85	.86	.86	.86	.86	.85	.85	.85	.84	.83	.82	.81	.81	.80	.79	.78	.77	.77	.76	.70
	*117	*129	*141	*152	*161	*169	*175	*179	*181	*181	*179	*175	*163	*150	*132	*113	*133	*123	*115	*103	993	986	*080	*074
1000	.85	.87	.88	.88	.89	.89	.89	.89	.89	.89	.89	.88	.87	.86	.85	.84	.84	.83	.82	.81	.81	.80	.80	.79
	*163	*175	*186	*197	*206	*213	*218	*222	*223	*223	*220	*216	*201	*201	*193	*184	*174	*164	*155	*144	990	980	*130	*124
15	.89	.90	.91	.91	.91	.92	.92	.92	.91	.91	.91	.90	.89	.89	.88	.87	.86	.85	.85	.84	.83	.83	.82	.82
	*203	*215	*227	*236	*245	*251	*256	*259	*260	*259	*257	*252	*240	*237	*229	*220	*211	*201	*192	*183	*173	*170	*165	*161
30	.92	.93	.93	.94	.94	.94	.94	.94	.94	.93	.93	.92	.92	.91	.90	.89	.88	.88	.87	.86	.85	.85	.85	.85
	*235	*251	*261	*271	*278	*285	*289	*291	*292	*290	*287	*283	*275	*268	*260	*251	*242	*233	*224	*215	*204	*200	*197	
45	.94	.95	.95	.96	.96	.96	.96	.96	.96	.95	.95	.94	.93	.93	.92	.91	.90	.89	.89	.88	.87	.87	.87	.87
	*269	*281	*291	*299	*307	*312	*316	*318	*318	*316	*313	*308	*300	*292	*285	*276	*268	*259	*251	*241	*238	*233	*230	*228
1100	.96	.97	.97	.97	.98	.98	.98	.97	.97	.97	.96	.96	.95	.94	.93	.92	.92	.91	.90	.89	.89	.89	.89	.89
	*294	*305	*315	*323	*329	*334	*337	*339	*338	*336	*333	*328	*320	*313	*305	*296	*288	*280	*273	*263	*251	*257	*254	*253
15	.97	.98	.98	.99	.99	.99	.99	.98	.98	.98	.97	.97	.96	.95	.94	.93	.93	.92	.91	.91	.91	.90	.90	.90
	*314	*324	*333	*340	*346	*351	*353	*354	*353	*351	*347	*341	*331	*327	*319	*311	*303	*296	*289	*283	*279	*276	*274	*273
30	.98	.99	.99	***	***	***	.99	.99	.99	.98	.98	.97	.96	.96	.95	.94	.93	.93	.92	.92	.91	.91	.91	.91
	*328	*337	*345	*352	*357	*361	*363	*362	*362	*359	*355	*350	*342	*335	*327	*320	*313	*306	*300	*295	*291	*289	*288	*288
45	.99	.99	***	***	***	***	***	.99	.99	.99	.99	.97	.96	.96	.95	.94	.94	.93	.93	.92	.92	.92	.92	.92
	*336	*344	*352	*358	*363	*366	*367	*367	*365	*362	*357	*352	*344	*337	*330	*323	*316	*310	*305	*301	*298	*296	*296	*297

SEP-DEC 0 TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M**2.) *** SIGNIFIES COS Z = 0. ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					NOV					DEC							
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30					
1200	.99	***	***	***	***	***	***	.99	.99	.99	.98	.97	***	.99	.99	.98	.92	.92	.92	.92	.92	.92	.92
	*338	*346	*353	*359	*362	*365		*365	*365	*362	*359	*354	*349	*341	*334	*327	*321	*315	*309		*304	*301	
15	.99	.99	.99	***	***	.99		.99	.99	.98	.98	.97	.96		.99	.95	.94	.94	.93	.93		.92	.92
	*335	*342	*348	*352	*356	*358		*358	*356	*354	*350	*345	*339		*332	*325	*319	*313	*307	*302		*298	*294
30	.98	.99	.99	.99	.99	.98		.98	.98	.97	.97	.96	.95		.95	.94	.93	.93	.92	.92		.91	.91
	*325	*332	*338	*342	*344	*345		*344	*342	*339	*335	*330	*324		*317	*311	*305	*299	*294	*290		*287	*283
45	.97	.97	.98	.97	.97	.97		.97	.96	.96	.95	.94	.94		.93	.92	.92	.91	.91	.90		.90	.90
	*311	*317	*321	*324	*326	*326		*325	*323	*319	*315	*310	*304		*297	*291	*285	*280	*275	*272		*269	*265
1300	.96	.96	.96	.96	.96	.95		.95	.94	.94	.93	.93	.92		.91	.91	.90	.89	.89	.89		.88	.88
	*290	*296	*299	*302	*303	*302		*300	*297	*293	*289	*283	*278		*271	*265	*260	*255	*251	*243		*247	*242
15	.94	.94	.94	.94	.93	.93		.93	.92	.92	.91	.90	.90		.89	.88	.88	.87	.87	.87		.86	.86
	*264	*269	*272	*273	*273	*272		*270	*266	*262	*257	*252	*246		*239	*234	*229	*225	*222	*220		*213	*220
30	.91	.92	.91	.91	.91	.91		.90	.89	.89	.88	.88	.87		.86	.85	.85	.85	.84	.84		.84	.84
	*233	*237	*239	*239	*239	*237		*234	*230	*225	*220	*215	*209		*202	*197	*193	*188	*183	*178		*186	*181
45	.89	.89	.89	.88	.88	.88		.87	.86	.86	.85	.85	.84		.83	.83	.82	.82	.82	.81		.81	.81
	*197	*199	*200	*200	*199	*196		*193	*188	*183	*178	*172	*167		*161	*156	*151	*146	*142	*137		*148	*143
1400	.86	.86	.85	.85	.85	.84		.84	.83	.82	.82	.81	.81		.80	.79	.79	.79	.79	.79		.78	.78
	*155	*157	*157	*156	*154	*151		*147	*142	*136	*131	*125	*120		*118	*113	*108	*104	*103	*103		*104	*102
15	.82	.82	.82	.81	.81	.81		.80	.79	.79	.78	.77	.77		.76	.75	.75	.75	.75	.75		.75	.75
	*108	*109	*109	*107	*104	*100		*095	*090	*084	*079	*073	*068		*062	*056	*051	*046	*041	*036		*037	*033
30	.79	.78	.78	.78	.77	.76		.76	.75	.75	.74	.73	.73		.72	.72	.71	.71	.71	.71		.71	.71
	*057	*057	*055	*053	*049	*045		*040	*034	*028	*022	*016	*011		*005	*000	*000	*000	*000	*000		*000	*000
45	.74	.74	.74	.73	.73	.72		.71	.71	.70	.70	.69	.68		.67	.67	.67	.67	.67	.67		.67	.67
	*001	*000	*998	*994	*990	*985		*979	*973	*967	*961	*955	*950		*943	*937	*931	*925	*919	*913		*907	*901

SEP-DEC 0 SOLAR PARAMETERS COS 2
 12. 1000 IC VALUES PRECEDED BY

MST	SEP					OCT					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30		
1500	.70	.69	.69	.69	.68	.67	.67	.63	.65	.65	.63	.63	.63	.63	.63	.63	.63	.65	.66	
	941	939	936	932	927	921	915	908	902	898	890	885	882	877	879	882	882	897	919	929
15	.65	.65	.64	.64	.63	.62	.62	.61	.60	.60	.59	.59	.58	.58	.58	.58	.58	.58	.61	.61
	876	874	870	865	859	853	846	840	833	827	821	817	813	811	810	811	813	822	846	857
30	.60	.60	.59	.59	.58	.57	.57	.56	.55	.55	.54	.54	.53	.53	.53	.53	.53	.54	.55	.56
	808	805	800	795	788	781	774	767	760	754	748	744	741	739	739	741	744	754	761	770
45	.55	.54	.54	.53	.52	.52	.51	.50	.50	.49	.49	.48	.48	.48	.48	.48	.48	.48	.51	.52
	737	733	727	721	714	706	699	692	685	678	673	669	665	665	667	671	676	693	691	700
1600	.49	.49	.48	.47	.47	.46	.45	.45	.44	.43	.43	.43	.42	.42	.42	.42	.43	.43	.44	.45
	662	657	651	644	636	629	621	613	606	600	595	591	587	588	591	595	601	609	617	627
15	.43	.43	.42	.42	.41	.40	.39	.39	.38	.38	.37	.37	.36	.36	.36	.37	.37	.38	.39	.40
	585	579	572	564	556	548	540	532	525	519	514	510	509	509	512	517	524	532	541	551
30	.37	.37	.36	.36	.35	.34	.33	.33	.32	.32	.31	.31	.31	.31	.31	.31	.32	.32	.33	.34
	505	498	491	482	474	465	456	448	441	435	430	427	425	426	422	437	444	453	462	473
45	.31	.31	.30	.29	.29	.28	.27	.26	.26	.25	.25	.25	.24	.25	.25	.25	.26	.26	.27	.28
	423	415	407	398	389	380	371	363	356	350	345	342	341	342	343	349	355	372	382	393
1700	.25	.25	.24	.23	.22	.21	.21	.20	.20	.19	.19	.18	.18	.18	.19	.19	.20	.21	.21	.22
	339	331	322	312	303	293	284	276	269	263	259	256	253	255	260	265	271	289	300	311
15	.19	.18	.17	.17	.16	.15	.14	.14	.13	.13	.12	.12	.12	.12	.12	.13	.14	.15	.15	.16
	253	245	235	225	215	205	196	188	181	175	171	169	163	160	174	179	186	205	215	228
30	.12	.12	.11	.10	.09	.09	.08	.07	.07	.06	.06	.06	.06	.06	.06	.07	.07	.09	.09	.10
	167	157	147	137	127	117	107	099	092	086	082	080	031	033	037	053	101	120	132	144
45	.06	.05	.04	.04	.03	.02	.01	.01	.00	.00	.00	.00	.00	.00	.00	.01	.01	.03	.03	.04
	080	070	059	048	038	027	018	009	002	000	000	000	000	000	000	007	015	035	047	059

SEP-DEC 0 TABLE B-1 SOLAR PARAMETERS COS 2 XC (W/M²*2.) ... SIGNIFIES COS 2 =1. ADD 1000 TO VALUES PRECEDED BY *

MST	JAN							FEB							DATE							MAR							APR						
	DATE							DATE							DATE							DATE							DATE						
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30				
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00				
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000				
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00				
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000				
30	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00				
	012	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000				
45	.07	.06	.05	.03	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00				
	092	079	063	046	029	011	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000				
0600	.12	.11	.10	.09	.08	.07	.05	.04	.03	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00				
	172	159	143	127	110	093	077	057	042	028	014	002	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000				
15	.18	.17	.16	.15	.14	.12	.11	.10	.09	.08	.07	.06	.05	.04	.04	.03	.03	.02	.02	.02	.01	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00				
	252	240	224	208	192	175	159	140	126	112	099	087	070	061	052	044	037	029	029	021	013	005	000	000	000	000	000	000	000	000	000				
30	.23	.23	.22	.20	.19	.18	.17	.16	.15	.14	.13	.12	.11	.11	.10	.09	.09	.08	.08	.08	.07	.07	.06	.05	.05	.05	.05	.05	.05	.05	.05				
	332	320	305	289	273	257	242	223	209	196	183	172	155	146	137	129	121	113	113	104	095	098	079	070	060	060	060	060	060	060	060				
45	.29	.28	.27	.26	.25	.24	.23	.22	.21	.20	.19	.18	.17	.17	.16	.15	.15	.14	.14	.14	.13	.12	.12	.11	.10	.10	.10	.10	.10	.10	.10				
	411	399	385	369	354	339	324	306	292	279	267	256	240	230	221	213	205	197	187	173	169	160	150	139	139	139	139	139	139	139	139				
0700	.35	.34	.33	.32	.31	.30	.29	.28	.27	.26	.25	.24	.23	.23	.22	.22	.21	.20	.20	.20	.19	.18	.18	.17	.16	.16	.16	.16	.16	.16	.16				
	489	478	464	449	434	419	405	388	375	362	351	339	323	314	305	296	288	279	269	259	250	239	229	217	217	217	217	217	217	217	217				
15	.40	.39	.38	.37	.36	.35	.34	.33	.33	.32	.31	.30	.29	.29	.28	.27	.27	.26	.26	.26	.25	.24	.23	.23	.22	.22	.22	.22	.22	.22	.22				
	566	555	541	527	513	499	485	469	456	444	433	422	406	396	387	378	369	360	349	333	329	318	306	294	294	294	294	294	294	294	294				
30	.45	.45	.44	.43	.42	.41	.40	.39	.38	.37	.37	.36	.35	.35	.34	.33	.33	.32	.32	.31	.30	.29	.28	.27	.27	.27	.27	.27	.27	.27	.27				
	641	631	618	604	591	577	564	549	536	525	513	503	487	477	468	459	450	440	428	417	405	394	382	369	369	369	369	369	369	369	369				
45	.51	.50	.49	.48	.47	.46	.45	.45	.44	.43	.42	.42	.41	.41	.40	.39	.38	.38	.38	.37	.36	.35	.35	.34	.33	.33	.33	.33	.33	.33	.33				
	715	705	692	679	666	653	641	626	614	603	592	582	565	557	547	537	528	517	504	493	481	468	455	442	442	442	442	442	442	442	442				

JAN-APR 20 S TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M*2.) *** SIGNIFIES COS Z =1. ADD 1000 TO VALUES PRECEDED BY *

MST	DATE																										
	JAN						FEB						MAR						APR								
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30								
0800	.56	.55	.54	.53	.52	.51		.50	.49	.48	.48	.47		.46	.45	.44	.44	.43		.42	.42	.41	.40	.39	.38		
	786	777	765	752	740	728	716	702	690	680	669	659		643	633	624	614	603	593		579	567	554	540	526	512	
15	.60	.60	.59	.58	.57	.56		.55	.54	.54	.53	.53		.52	.51	.50	.49	.48		.48	.47	.46	.45	.44	.43		
	855	846	834	823	811	800	788	775	764	754	743	733		718	708	698	687	676	665		650	638	624	610	595	580	
30	.65	.64	.64	.63	.62	.61		.60	.59	.59	.58	.58		.57	.56	.56	.55	.54	.54		.53	.52	.51	.50	.49	.48	
	920	912	901	890	879	869	858	845	835	825	815	805		789	779	769	758	747	735		719	705	691	676	660	644	
45	.69	.69	.68	.68	.67	.66	.66		.65	.64	.64	.63	.63		.62	.61	.60	.60	.59	.58		.57	.55	.55	.55	.53	.52
	983	975	965	955	945	935	925	913	903	893	883	874		858	847	837	825	813	801		785	770	755	739	723	706	
0900	.74	.73	.73	.72	.71	.71	.70		.69	.69	.68	.68	.67		.66	.66	.65	.64	.64	.63		.62	.61	.60	.59	.58	.57
	042	035	026	016	007	997	988	977	967	958	948	939		923	912	901	889	877	863		846	831	815	798	781	764	
15	.78	.77	.77	.76	.75	.75	.74		.74	.73	.73	.72	.72		.71	.70	.70	.69	.68	.67		.66	.65	.64	.63	.62	.61
	098	091	083	074	065	056	048	037	028	019	010	000		984	973	962	949	936	922		904	883	872	854	836	818	
30	.81	.81	.80	.80	.79	.79	.78		.78	.77	.77	.76	.76		.75	.74	.74	.73	.72	.71		.70	.69	.68	.67	.66	.64
	150	144	136	128	120	112	104	094	085	076	067	058		041	030	018	006	992	977		958	942	924	906	887	868	
45	.85	.84	.84	.83	.83	.82	.82		.81	.81	.81	.80	.80		.79	.78	.77	.77	.76	.75		.74	.73	.72	.70	.69	.68
	197	192	185	178	170	163	155	146	138	129	121	111		094	083	071	057	043	028		008	990	972	953	934	914	
1000	.88	.87	.87	.87	.86	.86	.85		.85	.84	.84	.84	.83		.82	.82	.81	.80	.79	.78		.77	.75	.75	.73	.72	.71
	241	236	229	223	217	210	203	194	186	178	169	160		143	131	119	105	090	074		053	035	015	996	976	956	
15	.90	.90	.90	.89	.89	.89	.88		.88	.88	.87	.87	.86		.85	.85	.84	.83	.82	.81		.80	.79	.78	.76	.75	.74
	279	275	270	264	258	252	246	239	230	222	214	204		187	175	162	147	132	115		093	074	055	034	013	992	
30	.93	.93	.92	.92	.92	.91	.91		.91	.90	.90	.90	.89		.88	.87	.87	.86	.85	.84		.83	.81	.80	.79	.77	.76
	314	310	305	300	295	290	284	277	270	262	253	244		226	214	200	185	169	151		129	109	089	068	046	025	
45	.95	.95	.94	.94	.94	.94	.93		.93	.93	.92	.92	.92		.91	.90	.89	.88	.87	.86		.85	.84	.82	.81	.79	.78
	343	340	336	332	328	323	318	311	304	296	288	278		260	247	233	218	201	183		159	139	118	096	074	052	

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

SOLAR PARAMETERS COS Z
X0 (W/M*2.)

TABLE B-1

20 S

JAN-APR

MST	JAN					FEB					DATE					MAR					APR				
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1100	.97	.96	.96	.96	.96	.96	.95	.95	.95	.94	.94	.94	.94	.93	.92	.91	.90	.89	.88	.87	.85	.84	.83	.81	.80
	*367	*365	*362	*359	*355	*351	*346	*339	*333	*326	*317	*307	*280	*276	*261	*245	*228	*209		*185	*164	*142	*119	*097	*074
15	.98	.98	.98	.98	.97	.97	.97	.97	.97	.96	.96	.95	.94	.94	.94	.93	.92	.91	.90	.88	.87	.85	.84	.82	.81
	*387	*385	*383	*380	*377	*373	*369	*363	*357	*350	*341	*332	*313	*299	*264	*267	*249	*230		*205	*183	*161	*138	*115	*092
30	.99	.99	.99	.99	.99	.99	.98	.98	.98	.98	.97	.97	.96	.96	.95	.94	.93	.92	.91	.89	.88	.85	.85	.83	.82
	*401	*400	*398	*396	*394	*391	*387	*382	*376	*369	*360	*350	*331	*317	*301	*284	*265	*245		*220	*197	*174	*151	*127	*104
45	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.98	.98	.97	.96	.95	.94	.93	.91	.90	.88	.87	.85	.84	.82	.82
	*410	*409	*409	*407	*406	*403	*400	*395	*389	*382	*374	*363	*344	*329	*313	*295	*276	*255		*229	*203	*182	*158	*134	*111
1200	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.98	.97	.96	.95	.94	.93	.92	.90	.89	.87	.86	.84	.82	.82
	*414	*414	*414	*413	*412	*410	*407	*403	*397	*390	*382	*371	*351	*336	*319	*301	*281	*260		*233	*203	*185	*160	*136	*112
15	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.98	.97	.96	.95	.94	.93	.92	.90	.89	.87	.85	.84	.82	.82
	*412	*413	*414	*414	*413	*412	*409	*405	*400	*393	*384	*373	*353	*337	*320	*301	*281	*259		*231	*207	*182	*157	*133	*109
30	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.98	.97	.96	.95	.94	.93	.91	.90	.89	.89	.85	.85	.83	.82
	*405	*407	*408	*409	*409	*408	*406	*402	*397	*390	*381	*370	*340	*323	*315	*296	*275	*252		*224	*199	*174	*149	*124	*100
45	.98	.99	.99	.99	.99	.99	.99	.99	.99	.99	.98	.97	.96	.95	.94	.93	.92	.90	.89	.87	.85	.84	.82	.80	.80
	*394	*396	*398	*399	*400	*399	*397	*393	*388	*381	*372	*361	*339	*323	*305	*285	*263	*240		*211	*185	*161	*135	*110	*086
1300	.97	.97	.98	.98	.98	.98	.96	.98	.98	.97	.97	.96	.95	.94	.93	.92	.91	.89	.87	.85	.84	.82	.81	.79	.79
	*377	*379	*382	*384	*385	*385	*383	*379	*374	*367	*358	*347	*324	*308	*289	*269	*246	*223		*193	*169	*142	*116	*091	*066
15	.96	.96	.96	.96	.96	.97	.97	.97	.96	.96	.96	.95	.94	.93	.92	.90	.89	.87	.86	.84	.82	.81	.79	.77	.77
	*354	*358	*361	*363	*365	*365	*364	*360	*355	*348	*339	*327	*304	*287	*268	*247	*224	*200		*170	*144	*118	*092	*067	*042
30	.94	.94	.94	.95	.95	.95	.95	.95	.95	.94	.94	.93	.92	.91	.90	.88	.87	.85	.83	.82	.80	.78	.77	.75	.75
	*327	*331	*335	*338	*340	*340	*339	*336	*330	*323	*314	*302	*278	*261	*241	*220	*196	*172		*142	*115	*089	*063	*037	*013
45	.92	.92	.92	.92	.92	.93	.93	.93	.93	.92	.92	.91	.90	.89	.87	.86	.85	.83	.81	.79	.78	.76	.74	.73	.73
	*295	*299	*304	*307	*309	*310	*309	*306	*301	*293	*284	*272	*247	*229	*209	*187	*164	*139		*108	*082	*055	*029	*003	*979

JAN-APR 20 S TABLE B-1 SOLAR PARAMETERS COS Z *** SIGNIFIES COS Z = 1.
 Y0 (W/M-2.) ADD 1000 TO VALUES PRECEDED BY .

MST

DATE

	JAN					FEB					MAR					APR				
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1400	.89 .89 .90 .90 .90 .90 .90	.259*263*268*272*274*275*275						.90 .90 .90 .89 .89 .89			.87 .86 .85 .83 .82 .80			.78 .75 .75 .73 .71 .70			.069*043*016 990 964 940			
15	.86 .86 .87 .87 .87 .88 .88	.217*222*228*232*235*236*235						.88 .87 .87 .86 .86 .86			.84 .83 .82 .80 .79 .77			.75 .73 .72 .70 .68 .66			.026 993 973 946 921 897			
30	.83 .83 .84 .84 .84 .84 .84	.172*177*183*187*190*192*191						.84 .84 .84 .83 .82 .82			.81 .80 .78 .77 .75 .74			.72 .70 .68 .66 .65 .63			.978 951 925 898 873 849			
45	.79 .80 .80 .81 .81 .81 .81	.122*127*134*138*142*143*142						.81 .81 .80 .80 .79 .79			.77 .76 .75 .73 .72 .70			.68 .65 .64 .62 .61 .59			.926 893 872 846 821 797			
1500	.75 .76 .76 .77 .77 .77 .77	.068*074*080*085*089*090*089						.77 .77 .76 .76 .75 .75			.73 .72 .71 .69 .67 .66			.64 .62 .60 .58 .57 .55			.670 843 816 790 765 742			
15	.71 .72 .72 .73 .73 .73 .73	.010*017*023*028*032*033*033						.73 .73 .72 .72 .71 .71			.69 .68 .66 .65 .63 .61			.59 .57 .56 .54 .52 .51			.809 782 756 730 705 682			
30	.67 .68 .68 .68 .69 .69 .69	.949 956 962 968 971 973 972						.69 .68 .68 .67 .66 .66			.65 .63 .62 .60 .58 .57			.55 .53 .51 .49 .48 .46			.745 718 692 666 642 619			
45	.63 .63 .64 .64 .64 .64 .64	.885 891 898 904 907 909 908						.64 .64 .63 .63 .62 .62			.60 .58 .57 .55 .54 .52			.50 .48 .46 .44 .43 .41			.678 651 625 600 576 554			
1600	.58 .58 .59 .59 .59 .60 .60	.817 824 831 837 840 841 840						.59 .59 .58 .58 .57 .57			.55 .53 .52 .50 .48 .47			.44 .43 .41 .39 .37 .36			.607 581 555 530 506 485			
15	.53 .53 .54 .54 .55 .55 .55	.747 754 761 767 770 771 770						.54 .54 .53 .52 .51 .51			.50 .48 .47 .45 .43 .41			.39 .37 .35 .34 .32 .31			.534 503 482 458 435 413			
30	.48 .48 .49 .49 .49 .49 .49	.675 682 689 694 697 698 697						.49 .49 .48 .47 .46 .46			.44 .43 .41 .39 .38 .36			.34 .32 .30 .28 .27 .25			.458 432 407 383 360 340			
45	.42 .43 .43 .44 .44 .44 .44	.600 607 615 620 623 623 621						.44 .43 .43 .42 .41 .41			.38 .37 .35 .34 .32 .30			.28 .25 .24 .23 .21 .20			.380 354 330 306 284 264			

JAN-APR 20 S TABLE B-1 SOLAR PARAMETERS COS Z ** SIGNIFIES COS Z = 1.
 XO (W/M**2.) ADD 1000 TO VALUES PRECEDED BY *

MST	DATE												
	JAN			FEB			MAR			APR			
	1	5	10	15	20	25	30	5	10	15	20	25	30
1700	.37	.38	.38	.38	.39	.39	.39	.33	.31	.30	.28	.26	.24
	524	531	538	543	546	546	544	455	433	409	384	358	332
15	.32	.32	.33	.33	.33	.33	.33	.27	.25	.24	.22	.20	.18
	446	453	460	465	467	467	464	373	351	327	302	276	250
30	.26	.26	.27	.27	.27	.27	.27	.21	.19	.18	.16	.14	.12
	367	374	381	386	388	387	384	290	267	243	218	193	167
45	.20	.21	.21	.22	.22	.22	.21	.15	.13	.12	.10	.08	.06
	288	295	301	305	307	306	302	206	183	159	134	109	83
1800	.15	.15	.16	.16	.16	.16	.16	.09	.07	.05	.04	.02	.00
	208	214	221	224	226	224	220	121	098	074	049	024	000
15	.09	.10	.10	.10	.10	.10	.10	.03	.01	.00	.00	.00	.00
	128	134	140	143	144	142	138	036	013	000	000	000	000
30	.03	.04	.04	.04	.04	.04	.04	.00	.00	.00	.00	.00	.00
	048	054	060	062	063	060	055	000	000	000	000	000	000
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000

JAN-APR 20 S TABLE B-1 SOLAR PARAMETERS COS Z XO (W/M**2.) *** SIGNIFIES COS Z =1. ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					JUL					AUG				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30		
0600	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
30	.04	.03	.02	.01	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
45	.10	.09	.08	.07	.06	.05	.05	.04	.03	.03	.02	.02	.02	.02	.02	.02	.02	.02		
0700	.15	.14	.13	.12	.11	.10	.10	.09	.08	.08	.08	.08	.08	.08	.08	.08	.08	.08		
15	.21	.20	.19	.18	.17	.16	.16	.15	.14	.14	.13	.13	.13	.13	.13	.13	.13	.13		
30	.26	.26	.25	.24	.23	.22	.21	.20	.19	.19	.18	.18	.18	.18	.18	.18	.18	.18		
45	.32	.31	.30	.29	.28	.27	.26	.25	.24	.24	.24	.24	.24	.24	.24	.24	.24	.24		
0800	.37	.36	.35	.34	.33	.32	.31	.30	.29	.29	.29	.29	.29	.29	.29	.29	.29	.29		
15	.42	.41	.40	.39	.38	.37	.36	.35	.34	.34	.33	.33	.33	.33	.33	.33	.33	.33		
30	.47	.46	.45	.43	.42	.41	.40	.39	.38	.38	.38	.38	.38	.38	.38	.38	.38	.38		
45	.51	.50	.49	.48	.47	.46	.45	.44	.43	.43	.43	.43	.43	.43	.43	.43	.43	.43		

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

SOLAR PARAMETERS
XO (W/M**2.)

TABLE 8-1

MAY-AUG

20 S

PREVIOUS PAGE
IS BLANK

MST	MAY					JUN					JUL					AUG								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30						
0900	.55	.54	.53	.52	.51	.50	.49	.48	.48	.47	.47	.47	.47	.47	.48	.48	.49	.50	.52	.53	.55	.56	.58	.60
	746	728	711	695	679	664	649	638	630	623	619	618	619	623	630	639	651	666	687	707	729	753	778	804
15	.59	.58	.57	.56	.55	.54	.53	.52	.51	.51	.51	.51	.51	.51	.52	.52	.53	.54	.56	.57	.59	.60	.62	.64
	799	781	763	746	730	716	700	690	681	675	671	670	671	676	683	693	705	721	742	762	785	808	834	860
30	.63	.62	.61	.59	.58	.57	.56	.56	.55	.55	.54	.54	.54	.55	.55	.56	.57	.58	.60	.61	.63	.64	.66	.68
	849	830	812	795	778	763	748	737	729	723	719	718	720	725	732	743	756	771	793	814	836	860	886	912
45	.66	.65	.64	.63	.62	.61	.60	.59	.58	.58	.58	.58	.58	.58	.59	.60	.60	.62	.63	.65	.66	.68	.70	.71
	894	875	856	839	822	807	791	781	772	766	763	763	765	770	778	789	802	818	840	861	894	908	934	960
1000	.70	.68	.67	.66	.65	.64	.63	.62	.61	.61	.61	.61	.61	.61	.62	.63	.64	.65	.66	.63	.63	.71	.73	.75
	935	916	896	878	862	847	831	820	812	806	803	803	806	811	820	831	845	861	883	904	927	952	977	1003
15	.72	.71	.70	.68	.67	.66	.65	.64	.64	.64	.63	.63	.64	.64	.65	.66	.67	.68	.69	.71	.72	.74	.76	.78
	972	952	932	914	897	882	866	855	847	842	839	839	842	848	857	869	883	899	922	943	966	990	1016	1042
30	.75	.73	.72	.71	.70	.69	.67	.67	.66	.66	.66	.66	.67	.67	.67	.68	.69	.70	.72	.73	.75	.77	.78	.80
	1004	983	963	945	927	912	897	886	878	873	871	871	875	881	890	902	916	933	956	973	1001	1025	1050	1076
45	.77	.75	.74	.73	.72	.70	.69	.69	.68	.68	.68	.68	.68	.69	.69	.70	.71	.72	.74	.75	.77	.79	.81	.82
	1030	1009	989	971	953	938	923	912	905	900	898	899	902	909	918	931	945	962	986	1007	1030	1054	1079	1105
1100	.78	.77	.75	.74	.73	.72	.71	.70	.70	.70	.70	.70	.70	.70	.71	.72	.73	.74	.76	.77	.79	.81	.82	.84
	1052	1031	1011	992	975	959	944	934	927	922	920	921	925	932	942	955	970	987	1010	1032	1055	1079	1103	1129
15	.79	.78	.77	.75	.74	.73	.72	.72	.71	.71	.71	.71	.71	.72	.73	.74	.75	.76	.77	.73	.73	.80	.82	.84
	1069	1048	1027	1008	991	976	961	951	944	939	938	939	944	951	961	974	989	1007	1030	1052	1074	1098	1123	1147
30	.80	.79	.78	.76	.75	.74	.73	.73	.72	.72	.72	.72	.72	.73	.74	.75	.76	.77	.79	.80	.82	.83	.85	.86
	1081	1059	1039	1020	1002	987	972	963	956	952	951	953	958	965	976	989	1004	1021	1045	1066	1089	1112	1136	1161
45	.81	.79	.78	.77	.76	.75	.74	.73	.73	.72	.72	.73	.73	.74	.74	.75	.76	.78	.79	.81	.82	.84	.85	.87
	1088	1066	1045	1026	1009	994	979	970	963	960	959	961	966	974	985	998	1014	1031	1055	1076	1098	1121	1145	1169

*** SIGNIFIES' COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

TABLE B-1 SOLAR PARAMETERS COS Z
XO (W/M*2.)

MAY-AUG 20 S

MST	MAY					JUN					JUL					AUG								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1200	.81	.80	.78	.77	.76	.75	.74	.73	.73	.73	.73	.73	.73	.74	.75	.76	.77	.78	.80	.81	.83	.84	.86	.87
	.089	.067	.046	.027	.010	.995	.981	.972	.966	.963	.962	.965	.970	.978	.989	.003	.018	.036	.059	.080	.102	.125	.149	.172
15	.81	.79	.78	.77	.75	.75	.74	.73	.73	.73	.73	.73	.73	.73	.74	.75	.76	.77	.80	.81	.83	.84	.86	.87
	.085	.063	.042	.023	.007	.992	.978	.969	.963	.960	.960	.963	.963	.978	.989	.002	.018	.036	.059	.080	.101	.124	.147	.170
30	.80	.79	.77	.76	.75	.74	.73	.72	.72	.72	.72	.72	.72	.73	.73	.74	.75	.76	.78	.79	.81	.82	.84	.85
	.076	.054	.033	.015	.998	.984	.970	.962	.956	.954	.954	.957	.963	.972	.983	.997	.013	.030	.053	.074	.095	.117	.140	.162
45	.79	.77	.76	.75	.74	.73	.72	.72	.71	.71	.71	.71	.71	.72	.73	.74	.76	.77	.78	.80	.81	.83	.84	.85
	.062	.040	.019	.001	.984	.970	.957	.949	.944	.942	.942	.946	.952	.961	.973	.987	.002	.020	.043	.063	.094	.105	.127	.149
1300	.78	.76	.75	.74	.72	.72	.71	.70	.70	.70	.70	.70	.70	.71	.72	.73	.74	.76	.77	.79	.80	.81	.83	.84
	.043	.021	.000	.982	.966	.952	.939	.932	.927	.925	.926	.930	.937	.946	.957	.971	.987	.004	.027	.047	.057	.088	.110	.130
15	.76	.74	.73	.72	.71	.70	.69	.69	.68	.68	.68	.69	.69	.70	.71	.72	.73	.74	.76	.77	.78	.80	.81	.82
	.018	.997	.976	.958	.943	.929	.917	.910	.905	.904	.905	.909	.916	.926	.937	.951	.967	.984	.006	.026	.043	.066	.087	.107
30	.74	.72	.71	.70	.69	.68	.67	.67	.66	.66	.66	.67	.67	.68	.69	.70	.71	.72	.74	.75	.75	.78	.79	.80
	.989	.968	.948	.930	.914	.902	.890	.883	.879	.878	.880	.884	.891	.901	.912	.926	.942	.959	.981	.000	.019	.039	.059	.079
45	.71	.70	.68	.67	.66	.65	.65	.64	.64	.64	.64	.65	.65	.66	.67	.68	.69	.70	.71	.73	.74	.75	.77	.78
	.955	.934	.914	.897	.882	.869	.856	.852	.848	.847	.850	.854	.862	.871	.883	.897	.912	.929	.950	.963	.988	.007	.026	.045
1400	.68	.67	.65	.64	.63	.63	.62	.62	.61	.61	.62	.62	.62	.63	.64	.65	.66	.67	.69	.70	.71	.73	.74	.75
	.917	.896	.876	.859	.845	.833	.822	.816	.813	.813	.815	.820	.827	.837	.849	.863	.878	.894	.915	.933	.952	.970	.989	.007
15	.65	.64	.62	.61	.60	.59	.59	.58	.58	.58	.59	.59	.59	.60	.60	.61	.62	.63	.66	.67	.68	.69	.71	.72
	.874	.853	.834	.817	.803	.792	.782	.776	.773	.773	.776	.781	.789	.799	.811	.824	.839	.855	.876	.893	.911	.929	.947	.964
30	.61	.60	.59	.58	.57	.56	.55	.55	.55	.55	.55	.56	.56	.57	.58	.59	.60	.61	.63	.64	.65	.66	.67	.68
	.826	.806	.787	.771	.758	.747	.737	.732	.730	.730	.733	.739	.747	.756	.768	.782	.796	.812	.832	.849	.865	.883	.900	.917
45	.58	.56	.55	.54	.53	.52	.52	.52	.51	.52	.52	.52	.52	.53	.54	.55	.55	.58	.59	.60	.61	.62	.63	.64
	.775	.755	.737	.721	.708	.698	.689	.684	.682	.683	.685	.692	.700	.710	.722	.735	.749	.765	.784	.800	.817	.833	.850	.865

... SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY -

COS Z
X0 (W/M*2.)

SOLAR PARAMETERS

MAY-AUG 20 S

MST

DATE

MAY

JUN

JUL

AUG

	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1500	.54	.52	.51	.50	.49	.48	.48	.48	.48	.48	.49	.49	.49	.50	.51	.52	.53	.54
	720	700	683	667	655	645	637	633	631	632	636	642	650	660	671	684	698	713
15	.49	.48	.47	.46	.45	.44	.44	.44	.44	.44	.44	.44	.45	.46	.47	.48	.49	.50
	661	642	625	610	598	589	581	577	577	578	582	588	596	606	617	630	644	658
30	.45	.43	.42	.41	.40	.40	.39	.39	.39	.39	.40	.40	.41	.41	.42	.43	.44	.45
	599	580	564	550	538	529	522	519	519	520	525	531	539	549	560	573	586	600
45	.40	.38	.37	.36	.36	.35	.35	.35	.35	.35	.35	.36	.36	.37	.38	.39	.40	.41
	533	515	499	486	475	467	461	458	458	460	454	471	479	489	500	512	525	538
1600	.35	.33	.32	.31	.31	.30	.30	.30	.30	.30	.31	.31	.31	.32	.33	.34	.35	.36
	465	448	432	420	409	402	396	394	394	397	401	408	416	426	436	448	461	474
15	.29	.28	.27	.26	.26	.25	.25	.25	.25	.25	.26	.26	.27	.27	.28	.29	.30	.31
	394	377	363	351	341	334	329	327	328	331	336	342	350	360	371	382	394	407
30	.24	.23	.22	.21	.20	.20	.20	.20	.20	.20	.21	.21	.21	.22	.23	.24	.25	.25
	321	305	291	280	271	265	260	259	260	263	268	275	283	292	302	314	325	337
45	.18	.17	.16	.16	.15	.15	.14	.14	.14	.15	.15	.16	.16	.17	.18	.18	.19	.20
	246	231	218	207	199	193	189	188	190	193	198	205	213	222	232	243	254	266
1700	.13	.12	.11	.10	.09	.09	.09	.09	.09	.09	.10	.10	.11	.11	.12	.13	.14	.15
	170	155	143	133	125	120	117	116	118	122	127	134	142	151	160	171	181	192
15	.07	.06	.05	.04	.04	.03	.03	.03	.03	.04	.04	.05	.05	.06	.07	.07	.08	.09
	092	078	066	057	050	046	043	043	045	049	054	061	069	078	087	097	107	117
30	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.02	.02	.03
	014	000	000	000	000	000	000	000	000	000	000	000	000	004	013	022	032	041
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000

MAY-AUG

20 S

TABLE B-1

SOLAR PARAMETERS

COS Z

XO (W/M*2.)

*** SIGNIFIES COS Z =1.
ADD 1000 TO VALUES PRECEDED BY *

MST	DATE																							
	SEP						OCT						NOV						DEC					
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
0600	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.02	.04	.06	.08	.10	.12	.14	.15	.17	.18	.19	.20	.21	.22	.22	.23	.23	.22	.21	.20	.19	.18	.17	.16
	032	057	083	110	136	162	187	210	232	252	269	284	298	307	313	316	317	315	310	303	295	284	272	258
30	.08	.10	.12	.14	.16	.18	.20	.21	.23	.24	.25	.26	.27	.28	.28	.28	.28	.28	.27	.27	.27	.26	.25	.24
	114	140	166	193	219	245	270	293	315	334	352	366	380	388	394	397	397	394	390	383	374	363	351	338
45	.15	.16	.18	.20	.22	.24	.26	.27	.29	.30	.31	.32	.33	.34	.34	.34	.34	.34	.33	.33	.32	.31	.30	.30
	195	221	248	275	301	327	352	375	397	416	433	447	460	468	473	476	476	473	468	461	452	442	430	417
0700	.20	.22	.24	.26	.28	.30	.32	.33	.35	.36	.37	.38	.39	.39	.39	.40	.39	.39	.39	.38	.37	.36	.35	.34
	275	301	328	355	382	408	433	456	477	496	512	526	539	547	552	554	553	551	546	538	530	520	508	495
15	.26	.28	.30	.32	.34	.36	.37	.39	.40	.42	.43	.43	.44	.45	.45	.45	.45	.45	.44	.44	.43	.42	.41	.40
	354	380	408	435	461	487	512	535	556	574	590	604	616	624	628	630	630	627	622	615	608	596	584	572
30	.32	.34	.36	.38	.40	.41	.43	.45	.46	.47	.48	.49	.50	.50	.50	.50	.50	.50	.49	.48	.47	.47	.46	.45
	430	457	485	512	539	565	589	612	632	651	666	679	691	698	703	704	704	701	696	689	680	670	659	647
45	.38	.39	.41	.43	.45	.47	.48	.50	.51	.52	.53	.54	.55	.55	.55	.55	.55	.55	.54	.54	.53	.53	.52	.51
	505	532	560	587	614	639	664	686	706	724	740	752	764	771	775	776	775	772	767	760	752	742	732	720

SEP-DEC 20 S TABLE B-1 SOLAR PARAMETERS COS Z
 *** SIGNIFIEES COS Z = 1.
 ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					DATE					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
0800	.43	.45	.47	.49	.50	.52	.54	.55	.56	.58	.58	.59	.60	.60	.60	.60	.60	.60	.59	.59	.58	.57	.57	.56	
	577	605	632	660	686	712	736	758	778	795	810	823	834	841	844	846	845	842	837	830	822	812	802	791	
15	.48	.50	.52	.54	.55	.57	.59	.60	.61	.62	.63	.64	.65	.65	.65	.65	.65	.65	.64	.64	.63	.62	.62	.61	
	647	674	702	729	756	781	805	826	846	863	878	890	901	907	911	912	911	908	903	897	883	880	870	860	
30	.53	.55	.57	.59	.60	.62	.64	.65	.66	.67	.68	.69	.69	.69	.70	.70	.69	.69	.69	.69	.69	.67	.67	.66	
	714	741	769	796	822	847	870	892	911	928	942	954	965	971	974	975	974	971	966	960	953	944	935	925	
45	.58	.60	.61	.63	.65	.67	.68	.69	.71	.72	.72	.73	.74	.74	.74	.74	.74	.73	.73	.72	.72	.71	.70	.70	
	777	804	832	859	885	909	932	953	972	989	1003	1014	1025	1030	1034	1035	1034	1031	1026	1021	1013	1005	997	987	
0900	.62	.64	.66	.68	.69	.71	.72	.74	.75	.76	.76	.77	.78	.78	.78	.78	.78	.77	.77	.76	.75	.75	.75	.74	
	837	864	891	918	944	968	991	1011	1030	1046	1060	1071	1081	1085	1090	1091	1090	1087	1083	1077	1071	1063	1055	1046	
15	.66	.68	.70	.72	.73	.75	.76	.78	.79	.80	.80	.81	.81	.82	.82	.81	.81	.81	.81	.80	.80	.79	.78	.78	
	893	920	947	973	998	1022	1045	1065	1083	1099	1112	1123	1133	1138	1142	1143	1142	1139	1135	1130	1124	1117	1110	1102	
30	.70	.72	.74	.75	.77	.79	.80	.81	.82	.83	.84	.84	.85	.85	.85	.85	.85	.84	.84	.84	.83	.83	.82	.81	
	944	971	998	1024	1049	1073	1095	1115	1132	1148	1161	1171	1181	1186	1189	1190	1190	1188	1184	1179	1174	1167	1160	1153	
45	.74	.75	.77	.79	.80	.82	.83	.84	.85	.86	.87	.87	.88	.88	.88	.88	.88	.87	.87	.87	.86	.86	.85	.85	
	992	1019	1045	1071	1095	1119	1140	1159	1177	1192	1204	1215	1224	1229	1232	1234	1233	1231	1228	1224	1219	1213	1207	1200	
1000	.77	.79	.80	.82	.83	.85	.86	.87	.88	.89	.90	.90	.91	.91	.91	.91	.91	.90	.90	.90	.89	.89	.88	.88	
	1035	1061	1088	1113	1137	1160	1181	1200	1216	1231	1243	1253	1263	1268	1271	1272	1272	1271	1268	1264	1260	1255	1249	1243	
15	.80	.81	.83	.85	.86	.88	.89	.90	.91	.92	.92	.93	.93	.93	.93	.93	.93	.93	.92	.92	.92	.91	.91	.91	
	1073	1099	1125	1150	1174	1196	1216	1235	1251	1265	1278	1287	1296	1302	1305	1306	1306	1305	1303	1300	1296	1291	1287	1282	
30	.82	.84	.85	.87	.88	.90	.91	.92	.93	.94	.94	.95	.95	.95	.95	.95	.95	.95	.95	.94	.94	.94	.93	.93	
	1107	1133	1158	1182	1205	1227	1247	1265	1281	1295	1307	1316	1325	1330	1334	1335	1335	1335	1333	1331	1327	1324	1320	1315	
45	.84	.86	.87	.89	.90	.92	.93	.94	.95	.95	.96	.96	.97	.97	.97	.97	.97	.97	.96	.96	.96	.96	.95	.95	
	1135	1161	1185	1209	1232	1253	1272	1290	1305	1319	1330	1340	1349	1354	1357	1359	1360	1360	1359	1357	1354	1351	1348	1344	

SEP-DEC 20 S TABLE B-1 SOLAR PARAMETERS COS Z ** SIGNIFIES COS Z = 1.
 ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					DATE					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1100	.86	.88	.89	.91	.92	.93	.94	.95	.96	.97	.97	.98	.93	.98	.98	.98	.98	.98	.98	.98	.98	.97	.97	.97	
	*159	*184	*208	*231	*253	*274							*292	*310	*325	*338	*349	*358							
15	.87	.89	.90	.92	.93	.94	.95	.96	.97	.98	.98	.99	.95	.96	.97	.98	.98	.99	.99	.99	.99	.99	.98	.98	
	*177	*201	*225	*248	*269	*289							*307	*324	*338	*351	*362	*371							
30	.88	.90	.91	.93	.94	.95	.96	.97	.98	.98	.99	.99	.96	.97	.98	.98	.99	.99	.99	.99	.99	.99	.99	.99	
	*190	*214	*237	*259	*280	*299							*317	*333	*347	*359	*370	*379							
45	.89	.90	.92	.93	.94	.95	.96	.97	.98	.99	.99	.99	.96	.97	.98	.99	.99	.99	.99	.99	.99	.99	.99	.99	
	*198	*221	*243	*264	*285	*303							*320	*336	*350	*362	*372	*381							
1200	.89	.90	.92	.93	.94	.95	.96	.97	.98	.98	.99	.99	.96	.97	.98	.98	.99	.99	.99	.99	.99	.99	.99	.99	
	*200	*222	*244	*265	*284	*302							*319	*334	*347	*359	*369	*378							
15	.89	.90	.91	.93	.94	.95	.96	.96	.97	.98	.98	.99	.96	.96	.97	.98	.98	.99	.99	.99	.99	.99	.99	.99	
	*197	*218	*239	*259	*278	*296							*312	*326	*339	*351	*361	*369							
30	.88	.89	.91	.92	.93	.94	.95	.96	.96	.97	.97	.98	.95	.96	.96	.97	.97	.98	.98	.98	.98	.98	.98	.98	
	*188	*209	*229	*249	*267	*284							*299	*313	*326	*337	*347	*355							
45	.87	.88	.90	.91	.92	.93	.94	.94	.95	.95	.96	.96	.93	.94	.95	.95	.96	.96	.96	.96	.96	.96	.96	.96	
	*174	*195	*214	*233	*250	*266							*281	*294	*307	*318	*327	*336							
1300	.86	.87	.88	.89	.90	.91	.92	.92	.93	.94	.94	.94	.92	.92	.93	.94	.94	.94	.94	.94	.94	.94	.94	.94	
	*155	*175	*193	*211	*228	*243							*250	*271	*282	*293	*303	*311							
15	.84	.85	.86	.87	.88	.89	.90	.90	.91	.91	.92	.92	.90	.90	.91	.91	.92	.92	.92	.92	.92	.92	.92	.92	
	*131	*150	*168	*185	*201	*215							*229	*242	*253	*263	*273	*282							
30	.82	.83	.84	.85	.86	.87	.88	.88	.89	.89	.90	.90	.87	.88	.88	.89	.89	.90	.90	.90	.90	.90	.90	.90	
	*101	*119	*137	*153	*168	*182							*195	*207	*218	*229	*238	*247							
45	.79	.80	.81	.82	.83	.84	.85	.85	.86	.86	.86	.87	.84	.85	.86	.86	.86	.87	.87	.87	.87	.87	.87	.87	
	*067	*084	*101	*116	*131	*144							*157	*168	*179	*189	*198	*207							

SEP-DEC 20 S TABLE B-1 SOLAR PARAMETERS COS Z ** SIGNIFIES COS Z = 1.
 X0 (W/M**2.) ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					NOV					DEC								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30						
1400	.76	.77	.78	.79	.80	.81	.81	.82	.82	.83	.83	.84	.84	.85	.85	.85	.86	.86	.87	.87	.87	.88	.88	.89
	.028	.044	.060	.075	.088	.101	.113	.124	.135	.145	.154	.163	.173	.181	.189	.197	.205	.213	.220	.223	.235	.243	.250	.256
15	.73	.74	.75	.76	.76	.77	.78	.78	.79	.79	.80	.80	.81	.81	.82	.82	.82	.83	.83	.84	.84	.85	.85	.86
	.984	.999	.014	.028	.041	.054	.065	.076	.086	.096	.105	.114	.125	.133	.142	.150	.159	.167	.175	.184	.192	.200	.207	.214
30	.69	.70	.71	.72	.73	.73	.74	.74	.75	.75	.76	.76	.77	.77	.78	.78	.79	.79	.80	.80	.81	.82	.82	.83
	.935	.950	.964	.978	.990	.002	.013	.023	.033	.043	.052	.061	.072	.081	.090	.099	.108	.117	.126	.135	.144	.153	.161	.169
45	.66	.66	.67	.68	.69	.69	.70	.70	.71	.71	.72	.72	.73	.73	.74	.74	.75	.76	.76	.77	.77	.78	.78	.79
	.883	.897	.910	.923	.934	.945	.956	.966	.976	.985	.995	.004	.015	.024	.034	.044	.053	.063	.073	.083	.092	.101	.110	.118
1500	.61	.62	.63	.64	.64	.65	.65	.66	.66	.67	.67	.68	.68	.69	.70	.70	.71	.71	.72	.73	.73	.74	.75	.75
	.826	.840	.852	.864	.875	.885	.895	.905	.915	.924	.933	.943	.954	.964	.974	.985	.995	.005	.016	.025	.035	.046	.056	.064
15	.57	.58	.58	.59	.60	.60	.61	.61	.62	.62	.63	.63	.64	.64	.65	.66	.66	.67	.68	.63	.69	.70	.71	.71
	.766	.778	.790	.801	.811	.821	.831	.840	.850	.859	.863	.878	.890	.900	.911	.922	.933	.944	.955	.966	.977	.988	.997	.007
30	.52	.53	.53	.54	.55	.55	.56	.56	.57	.57	.58	.58	.59	.60	.60	.61	.62	.62	.63	.64	.65	.65	.66	.67
	.702	.714	.725	.735	.745	.754	.763	.772	.782	.791	.800	.810	.823	.833	.845	.856	.868	.879	.891	.903	.914	.925	.936	.945
45	.47	.48	.48	.49	.50	.50	.51	.51	.52	.52	.53	.53	.54	.55	.55	.56	.57	.58	.58	.59	.60	.61	.62	.62
	.635	.646	.656	.666	.675	.684	.693	.701	.710	.720	.729	.740	.752	.764	.775	.787	.799	.812	.824	.837	.848	.860	.871	.881
1600	.42	.43	.43	.44	.44	.45	.45	.46	.46	.47	.47	.48	.49	.49	.50	.51	.52	.53	.54	.54	.55	.56	.57	.57
	.565	.575	.584	.593	.602	.610	.619	.628	.636	.646	.656	.666	.679	.691	.703	.716	.728	.741	.754	.767	.780	.792	.803	.813
15	.37	.37	.38	.38	.39	.39	.40	.40	.41	.41	.42	.42	.43	.44	.45	.46	.47	.48	.48	.49	.50	.51	.52	.53
	.492	.501	.510	.518	.527	.535	.543	.551	.560	.569	.579	.590	.604	.616	.628	.642	.655	.669	.682	.695	.709	.721	.733	.743
30	.31	.32	.32	.33	.33	.33	.34	.34	.35	.36	.36	.37	.38	.39	.39	.40	.41	.42	.43	.44	.45	.46	.47	.47
	.417	.425	.434	.441	.449	.457	.465	.473	.482	.491	.501	.512	.525	.539	.552	.566	.580	.594	.608	.622	.635	.648	.660	.671
45	.25	.26	.26	.27	.27	.28	.28	.29	.29	.30	.30	.31	.32	.33	.34	.35	.36	.37	.38	.39	.40	.41	.41	.42
	.340	.348	.355	.362	.369	.377	.384	.393	.401	.411	.421	.432	.447	.460	.474	.488	.502	.517	.532	.546	.560	.573	.585	.596

SEP-DEC 20 S TABLE 8-1 SOLAR PARAMETERS COS Z ** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	DATE																							
	SEP					OCT					NOV					DEC								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1700	.19	.20	.20	.21	.21	.22	.22	.23	.23	.24	.25	.25	.26	.27	.28	.29	.30	.31	.32	.33	.34	.35	.36	.37
	261	268	275	282	288	295	303	311	320	329	340	351	366	380	394	409	424	439	454	469	483	496	509	520
15	.13	.14	.14	.15	.15	.16	.16	.17	.17	.18	.19	.19	.20	.21	.22	.23	.25	.26	.27	.28	.29	.30	.30	.31
	181	187	193	200	206	213	220	228	237	247	257	269	285	299	313	329	344	360	375	390	405	419	431	442
30	.07	.08	.08	.09	.09	.10	.10	.11	.11	.12	.13	.13	.15	.16	.17	.18	.19	.20	.21	.22	.23	.24	.25	.26
	099	105	111	117	123	129	136	144	153	163	174	186	202	217	232	248	264	280	296	311	326	340	352	363
45	.01	.02	.02	.03	.03	.03	.04	.04	.05	.06	.07	.07	.09	.10	.11	.12	.13	.14	.15	.15	.17	.18	.19	.20
	017	023	028	033	039	045	052	060	069	079	091	103	120	135	150	166	183	199	216	231	246	260	273	284
1800	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.02	.03	.04	.05	.06	.07	.08	.10	.11	.12	.13	.14	.14
	000	000	000	000	000	000	000	000	000	000	007	020	037	052	068	085	102	119	135	151	165	180	193	204
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.03	.04	.05	.06	.07	.08	.09
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	004	021	038	055	071	087	101	113	124
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.02	.02	.03
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	007	021	034	044
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000

*** SIGNIFIES COS Z =1.
ADD 1000 TO VALUES PRECEDED BY *

SOLAR PARAMETERS
XO (W/M**2.)

TABLE B-1

20 S

SEP-DEC

MST	JAN							FEB							MAR							APR						
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30			
0400	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			
45	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			
0500	.06	.05	.04	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			
15	.10	.10	.08	.07	.05	.03	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			
30	.15	.14	.13	.11	.10	.08	.06	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			
45	.20	.19	.17	.16	.14	.13	.11	.09	.07	.05	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			
0600	.24	.23	.22	.21	.19	.17	.16	.14	.12	.10	.08	.06	.04	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			
15	.29	.28	.27	.25	.24	.22	.20	.18	.17	.15	.13	.11	.09	.08	.06	.04	.03	.01	.00	.00	.00	.00	.00	.00	.00			
30	.33	.33	.31	.30	.28	.27	.25	.23	.21	.20	.18	.16	.14	.13	.11	.09	.08	.06	.05	.03	.01	.00	.00	.00	.00			
45	.38	.37	.36	.35	.33	.32	.30	.28	.26	.24	.23	.21	.19	.18	.16	.15	.13	.11	.10	.08	.05	.04	.03	.01	.00			

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

SOLAR PARAMETERS COS Z
X0 (W/M**2.)

TABLE B-1

40 S

JAN-APR

MST	DATE											
	JAN			FEB			MAR			APR		
	1	5	10	15	20	25	30	5	10	15	20	25
0700	.42 .42 .40 .39 .38 .36 .35 601 589 572 553 533 511 488	.33 .31 .29 .28 .26 459 435 410 385 360	.23 .21 .20 .18 .16 .14 320 295 271 246 222 198	.12 .11 .09 .07 .06 .04 169 143 122 099 077 054								
15	.47 .46 .45 .44 .42 .41 .39 663 652 635 617 597 576 553	.37 .36 .34 .32 .31 525 501 477 452 427	.28 .26 .24 .23 .21 .19 387 363 338 313 289 264	.17 .15 .14 .12 .10 .09 235 211 187 163 140 117								
30	.51 .50 .49 .48 .47 .45 .44 725 713 697 680 660 639 618	.42 .40 .39 .37 .35 590 567 542 518 493	.33 .31 .29 .27 .26 .24 453 429 404 379 354 329	.22 .20 .18 .17 .15 .13 299 274 250 225 201 178								
45	.55 .55 .54 .52 .51 .50 .48 785 774 758 741 722 702 680	.46 .45 .43 .42 .40 653 630 606 582 558	.37 .36 .34 .32 .30 .29 518 493 468 443 417 392	.26 .25 .23 .21 .19 .18 362 336 311 286 261 237								
0800	.60 .59 .58 .57 .55 .54 .53 843 832 817 800 782 762 741	.51 .49 .48 .46 .44 715 692 669 645 620	.42 .40 .38 .37 .35 .33 581 556 530 505 479 453	.31 .29 .27 .25 .24 .22 422 396 370 345 319 295								
15	.64 .63 .62 .61 .59 .58 .57 899 888 874 858 840 821 800	.55 .54 .52 .50 .49 775 752 729 705 681	.46 .44 .43 .41 .39 .37 642 616 591 565 539 512	.35 .33 .31 .30 .28 .26 481 454 428 401 375 350								
30	.67 .67 .66 .65 .63 .62 .61 952 942 928 913 896 877 857	.59 .58 .56 .55 .53 832 810 787 764 740	.50 .49 .47 .45 .43 .42 700 675 649 622 596 569	.39 .37 .35 .34 .32 .30 537 503 482 455 429 402								
45	.71 .70 .69 .68 .67 .66 .65 *003 994 981 966 949 931 912	.63 .62 .60 .59 .57 887 865 843 820 796	.54 .53 .51 .49 .47 .45 756 730 704 677 650 623	.43 .41 .39 .37 .35 .34 590 562 534 507 479 453								
0900	.74 .74 .73 .72 .71 .70 .68 *052*043*030*015 999 982 963	.67 .65 .64 .62 .61 939 918 896 873 849	.58 .56 .55 .53 .51 .49 809 783 757 730 702 674	.47 .45 .43 .41 .39 .37 640 612 583 555 527 500								
15	.78 .77 .76 .75 .74 .73 .72 *097*089*076*063*047*030*012	.70 .69 .67 .66 .64 988 968 946 923 899	.62 .60 .58 .56 .55 .53 859 833 806 779 751 722	.50 .49 .47 .45 .44 .42 688 659 629 600 572 544								
30	.81 .80 .79 .78 .77 .76 .75 *139*131*120*106*092*075*058	.74 .72 .71 .69 .68 *035*014 992 969 946	.65 .63 .62 .60 .58 .56 905 879 852 824 796 767	.54 .51 .49 .47 .45 .43 732 702 672 643 613 585								
45	.83 .83 .82 .81 .80 .79 .78 *178*171*160*147*133*117*100	.77 .75 .74 .72 .71 *077*057*036*013 989	.68 .66 .65 .63 .61 .59 949 922 895 867 838 808	.56 .54 .52 .50 .48 .46 772 742 711 681 651 622								

*** SIGNIFIES COS 2 =1.
ADD 1000 TO VALUES PRECEDED BY *

SOLAR PARAMETERS
X0 (W/M**2.)

TABLE B-1
COS 2

40 S

JAN-APR

MST	JAN							FEB							DATE							MAR							APR						
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30				
1000	.86	.85	.85	.84	.83	.82	.81	.79	.78	.77	.75	.74	.71	.69	.68	.66	.64	.62	.59	.57	.55	.53	.51	.49	.809	.778	.747	.716	.686	.656					
	*213	*206	*196	*184	*170	*155	*138	*116	*097	*075	*053	*029		988	962	934	905	876	846																
15	.88	.88	.87	.86	.85	.84	.83	.82	.81	.79	.78	.76	.74	.72	.70	.68	.66	.64	.62	.59	.57	.55	.53	.51	.842	.810	.779	.747	.716	.686					
	*245	*238	*229	*217	*204	*190	*174	*152	*132	*111	*089	*055		*024	997	969	940	910	879																
30	.90	.90	.89	.88	.87	.86	.85	.84	.83	.82	.80	.79	.78	.76	.74	.72	.70	.68	.66	.64	.62	.59	.57	.55	.53	.871	.839	.806	.774	.743	.713				
	*273	*267	*258	*247	*235	*221	*205	*184	*164	*143	*121	*097		*056	*029	*000	971	940	909																
45	.92	.91	.91	.90	.89	.88	.87	.86	.85	.84	.82	.81	.78	.76	.74	.72	.70	.68	.66	.63	.61	.59	.57	.55	.896	.863	.830	.798	.766	.735					
	*297	*291	*283	*273	*261	*247	*232	*211	*192	*172	*149	*125		*084	*056	*027	997	966	934																
1100	.93	.93	.92	.92	.91	.90	.89	.88	.87	.85	.84	.82	.80	.78	.76	.74	.72	.70	.67	.65	.63	.60	.58	.56	.916	.883	.850	.817	.784	.753					
	*317	*312	*304	*294	*283	*270	*255	*235	*216	*196	*173	*149		*108	*080	*050	*020	988	956																
15	.94	.94	.93	.93	.92	.91	.90	.89	.88	.87	.85	.84	.81	.79	.77	.75	.73	.71	.68	.65	.64	.61	.59	.57	.933	.899	.865	.832	.799	.767					
	*332	*328	*321	*312	*301	*289	*274	*254	*236	*215	*193	*169		*127	*098	*069	*038	*006	973																
30	.95	.95	.94	.94	.93	.92	.91	.90	.89	.88	.86	.85	.82	.80	.78	.76	.74	.72	.69	.67	.64	.62	.60	.58	.945	.910	.875	.842	.809	.777					
	*344	*340	*334	*325	*315	*303	*289	*269	*251	*231	*208	*184		*142	*113	*083	*051	*019	985																
45	.95	.95	.95	.94	.94	.93	.92	.91	.90	.89	.87	.86	.83	.81	.79	.77	.75	.72	.70	.67	.65	.63	.60	.58	.952	.917	.883	.848	.815	.783					
	*351	*348	*342	*334	*325	*313	*299	*280	*262	*242	*219	*195		*152	*123	*092	*061	*028	994																
1200	.96	.96	.95	.95	.94	.93	.93	.91	.90	.89	.88	.86	.83	.81	.79	.77	.75	.73	.70	.67	.65	.63	.60	.58	.955	.920	.885	.850	.816	.784					
	*354	*352	*346	*339	*330	*319	*305	*286	*268	*248	*226	*201		*153	*129	*098	*065	*032	997																
15	.96	.95	.95	.95	.94	.94	.93	.92	.90	.89	.88	.86	.83	.81	.79	.77	.75	.73	.70	.67	.65	.63	.60	.58	.954	.919	.883	.848	.814	.781					
	*353	*351	*346	*340	*331	*320	*307	*288	*270	*250	*228	*203		*153	*130	*098	*065	*031	996																
30	.95	.95	.95	.94	.94	.93	.93	.91	.90	.89	.88	.86	.83	.81	.79	.77	.75	.72	.70	.67	.64	.62	.60	.57	.948	.912	.875	.841	.806	.774					
	*348	*346	*342	*336	*327	*317	*304	*286	*268	*248	*225	*200		*156	*126	*094	*061	*027	991																
45	.95	.94	.94	.94	.93	.93	.92	.91	.90	.88	.87	.85	.83	.81	.78	.76	.74	.72	.69	.65	.64	.61	.59	.57	.938	.901	.865	.830	.795	.762					
	*338	*337	*333	*327	*320	*309	*297	*279	*261	*241	*218	*193		*148	*118	*086	*052	*017	981																

JAN-APR 40 S TABLE B-1 SOLAR PARAMETERS COS Z ... SIGNIFIES COS Z = 1.
 X0 (W/M**2.) ADD 1000 TO VALUES PRECEDED BY .

MST

	JAN					FEB					MAR					APR				
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	30
1300	.94	.94	.94	.93	.93	.93	.92	.91	.90	.89	.88	.86	.85	.82	.80	.78	.75	.73	.70	.68
	.324	.323	.320	.315	.308	.298	.285	.267	.250	.229	.207	.181	.136	.105	.073	.039	.003	.967	.923	.883
15	.92	.92	.92	.92	.91	.91	.90	.89	.88	.87	.85	.83	.80	.78	.76	.74	.72	.69	.66	.64
	.306	.306	.303	.298	.291	.282	.270	.252	.234	.214	.191	.155	.120	.088	.055	.021	.985	.949	.904	.867
30	.91	.91	.91	.90	.90	.89	.89	.88	.86	.85	.84	.82	.79	.77	.75	.72	.70	.67	.64	.62
	.284	.284	.282	.278	.271	.261	.250	.232	.214	.193	.170	.145	.093	.067	.034	.999	.963	.926	.881	.844
45	.89	.89	.89	.89	.88	.88	.87	.86	.85	.83	.82	.80	.77	.75	.73	.70	.68	.66	.62	.60
	.258	.258	.257	.253	.246	.237	.225	.208	.190	.169	.146	.120	.073	.041	.008	.972	.936	.899	.854	.816
1400	.87	.87	.87	.87	.86	.86	.85	.84	.83	.81	.80	.78	.75	.73	.71	.68	.66	.63	.60	.59
	.228	.229	.227	.224	.218	.209	.197	.179	.161	.141	.117	.091	.044	.012	.978	.942	.905	.868	.822	.784
15	.84	.84	.84	.84	.84	.83	.83	.82	.80	.79	.77	.76	.73	.70	.68	.66	.63	.61	.58	.55
	.194	.195	.195	.191	.185	.176	.165	.147	.129	.108	.094	.058	.010	.978	.943	.908	.870	.833	.787	.743
30	.82	.82	.82	.82	.81	.81	.80	.79	.78	.76	.75	.73	.70	.68	.65	.63	.60	.58	.55	.52
	.157	.158	.158	.155	.149	.140	.129	.111	.093	.072	.048	.021	.973	.940	.905	.869	.832	.794	.748	.710
45	.79	.79	.79	.79	.79	.78	.77	.76	.75	.74	.72	.70	.67	.65	.62	.60	.57	.55	.52	.49
	.117	.118	.118	.115	.109	.101	.089	.071	.053	.032	.008	.980	.932	.899	.864	.827	.790	.751	.705	.667
1500	.76	.76	.76	.76	.75	.75	.74	.73	.72	.70	.69	.67	.64	.62	.59	.57	.54	.51	.48	.46
	.073	.074	.074	.072	.066	.058	.046	.028	.010	.988	.964	.936	.887	.854	.818	.782	.744	.705	.659	.621
15	.72	.73	.73	.73	.72	.72	.71	.70	.69	.67	.65	.64	.60	.58	.56	.53	.51	.48	.45	.42
	.026	.028	.028	.025	.020	.011	.000	.981	.963	.941	.916	.889	.839	.805	.770	.733	.695	.656	.610	.572
30	.69	.69	.69	.69	.69	.68	.67	.66	.65	.64	.62	.60	.57	.54	.52	.49	.47	.44	.41	.39
	.976	.978	.978	.978	.970	.962	.950	.932	.913	.891	.866	.838	.788	.754	.718	.681	.643	.604	.558	.520
45	.65	.65	.65	.65	.65	.64	.64	.62	.61	.60	.58	.56	.53	.50	.48	.45	.43	.40	.37	.34
	.923	.926	.926	.924	.918	.910	.898	.879	.860	.838	.812	.784	.734	.700	.663	.626	.588	.549	.503	.465

JAN-APR 40 S TABLE B-1 SOLAR PARAMETERS COS Z *** SIGNIFIES COS Z = 1.
 ADD 1000 TO VALUES PRECEDED BY *

MST	DATE												APR																		
	JAN			FEB			MAR			APR			JAN			FEB			MAR			APR									
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1600	.61	.62	.62	.61	.61	.61	.60	.59	.57	.56	.54	.52	.49	.46	.44	.41	.39	.36	.33	.33	.33	.27	.25	.22	.20	.445	.403	.371	.336	.303	.272
15	.57	.58	.58	.57	.57	.57	.56	.54	.53	.52	.50	.48	.44	.42	.40	.37	.34	.31	.28	.28	.28	.23	.20	.18	.16	.386	.343	.312	.277	.244	.214
30	.53	.53	.53	.53	.53	.53	.52	.51	.50	.49	.47	.46	.44	.40	.38	.35	.32	.30	.27	.24	.24	.20	.18	.16	.14	.324	.285	.250	.216	.184	.154
45	.49	.49	.49	.49	.49	.48	.47	.46	.44	.43	.41	.39	.35	.33	.30	.28	.25	.22	.19	.19	.19	.14	.11	.09	.07	.260	.223	.188	.154	.122	.093
1700	.44	.45	.45	.45	.44	.44	.43	.41	.40	.38	.36	.34	.31	.28	.26	.23	.20	.18	.14	.14	.14	.09	.07	.04	.02	.195	.153	.123	.090	.058	.030
15	.40	.40	.40	.40	.40	.40	.39	.37	.35	.34	.32	.30	.26	.23	.21	.18	.15	.13	.09	.09	.09	.04	.02	.00	.00	.129	.093	.058	.025	.000	.000
30	.35	.36	.36	.35	.35	.34	.33	.32	.31	.29	.27	.25	.21	.19	.16	.13	.11	.08	.06	.06	.06	.00	.00	.00	.00	.062	.025	.000	.000	.000	.000
45	.31	.31	.31	.31	.30	.30	.29	.27	.26	.24	.22	.20	.16	.14	.11	.08	.06	.03	.00	.00	.00	.00	.00	.00	.00	.000	.000	.000	.000	.000	.000
1800	.26	.26	.26	.26	.26	.25	.24	.22	.21	.19	.17	.15	.11	.09	.06	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.000	.000	.000	.000	.000	.000
15	.22	.22	.22	.22	.21	.20	.19	.18	.16	.14	.12	.10	.06	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.000	.000	.000	.000	.000	.000
30	.17	.17	.17	.17	.16	.15	.14	.13	.11	.09	.07	.05	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.000	.000	.000	.000	.000	.000
45	.13	.13	.13	.12	.12	.11	.10	.08	.06	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.000	.000	.000	.000	.000	.000

... SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY .

SOLAR PARAMETERS
XO (W/M**2.)

TABLE B-1

40 S

JAN-APR

MST	DATE																							
	JAN				FEB				MAR				APR											
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30					
1900	.08	.08	.08	.08	.07	.06	.05	.03	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00					
	113	114	113	107	099	086	070	046	022	000	000	000	000	000	000	000	000	000	000					
15	.04	.04	.04	.03	.02	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00					
	050	051	049	044	034	021	004	000	000	000	000	000	000	000	000	000	000	000	000					
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00					
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000					
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00					
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000					
JAN-APR	40	S	TABLE B-1				SOLAR PARAMETERS				COS 2				*** SIGNIFIES COS 2 =1.									
							X0 (W/M**2.)				ADD 1000 TO VALUES PRECEDED BY *													

*** SIGNIFIES COS Z =1.
ADD 1000 TO VALUES PRECEDED BY *

SOLAR PARAMETERS
X0 (W/M**2.)

TABLE B-1

40 S

JAN-APR

MST	MAY					JUN					JUL					AUG				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30		
0600	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000		
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000		
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000		
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000		
0700	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
	033	012	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000		
15	.07	.06	.04	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
	095	073	053	034	016	000	000	000	000	000	000	000	000	000	000	000	000	000		
30	.12	.10	.08	.07	.06	.04	.03	.02	.02	.01	.01	.01	.01	.01	.01	.01	.01	.01		
	155	133	112	092	074	058	041	029	020	013	009	008	010	016	024	036	051	069		
45	.16	.14	.13	.11	.10	.09	.07	.06	.06	.05	.05	.05	.05	.05	.05	.05	.05	.05		
	214	191	169	149	131	114	097	085	075	069	065	064	067	072	081	093	109	127		
0800	.20	.18	.17	.15	.14	.13	.11	.10	.10	.09	.09	.09	.09	.10	.10	.11	.12	.14		
	270	247	225	204	185	168	151	139	129	123	119	118	121	127	136	149	165	184		
15	.24	.22	.21	.19	.18	.17	.15	.14	.14	.13	.13	.13	.13	.14	.14	.15	.17	.18		
	325	301	279	257	238	221	203	191	181	175	171	171	174	180	189	202	219	238		
30	.28	.26	.25	.23	.22	.20	.19	.18	.17	.17	.17	.17	.17	.17	.17	.19	.20	.22		
	377	353	330	308	288	271	253	240	231	224	221	221	224	230	240	254	271	291		
45	.32	.30	.28	.27	.25	.24	.23	.22	.21	.21	.20	.20	.21	.21	.22	.23	.24	.26		
	427	402	378	356	336	318	300	288	278	272	268	268	272	279	289	303	320	340		

TABLE 9-1 SOLAR PARAMETERS COS Z
 MAY-AUG 40 S
 *** SIGNIFIES COS Z = 1.
 ADD 1000 TO VALUES PRECEDED BY .

MST

	MAY					JUN					JUL					AUG								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30						
0900	.35	.33	.32	.30	.29	.27	.26	.25	.24	.24	.24	.24	.24	.25	.25	.26	.28	.29	.31	.33	.35	.38	.40	.43
	473	448	424	402	381	363	345	332	323	316	313	314	317	325	325	349	367	388	417	441	474	506	540	576
15	.38	.37	.35	.33	.32	.30	.29	.28	.28	.27	.27	.27	.27	.28	.29	.30	.31	.33	.35	.37	.39	.41	.44	.46
	517	491	467	444	423	405	386	374	364	358	355	355	360	368	379	393	411	432	461	481	519	551	586	622
30	.41	.40	.38	.36	.35	.33	.32	.31	.30	.30	.30	.30	.30	.31	.32	.33	.34	.36	.38	.40	.42	.44	.47	.49
	557	531	506	483	462	444	425	413	403	397	395	395	400	408	419	434	452	473	503	531	551	594	628	664
45	.44	.42	.41	.39	.37	.36	.35	.34	.33	.33	.33	.33	.33	.34	.34	.36	.37	.39	.41	.43	.45	.47	.50	.52
	594	567	542	519	498	479	460	448	439	433	431	432	436	444	456	471	490	512	542	570	600	633	667	703
1000	.47	.45	.43	.41	.40	.38	.37	.36	.36	.35	.35	.35	.35	.36	.37	.38	.40	.41	.43	.45	.48	.50	.52	.55
	628	600	575	551	530	511	493	480	471	465	463	465	469	478	490	506	524	546	577	605	635	668	703	738
15	.49	.47	.45	.43	.42	.41	.39	.38	.38	.37	.37	.37	.37	.38	.39	.40	.42	.44	.46	.48	.50	.52	.55	.57
	657	630	604	580	559	540	521	509	500	494	493	494	499	508	521	536	555	578	608	637	667	700	734	770
30	.51	.49	.47	.45	.44	.42	.41	.40	.40	.39	.39	.39	.40	.40	.41	.43	.44	.46	.48	.50	.52	.54	.57	.59
	683	655	629	605	584	565	546	534	525	520	518	520	526	535	547	564	583	605	636	664	695	728	762	797
45	.52	.50	.49	.47	.45	.44	.43	.42	.41	.41	.41	.41	.41	.42	.43	.44	.46	.47	.50	.52	.54	.56	.59	.61
	705	677	651	627	605	586	567	555	547	542	540	542	545	558	571	587	607	629	660	689	719	752	786	821
1100	.54	.52	.50	.48	.47	.45	.44	.43	.43	.42	.42	.42	.42	.43	.44	.45	.46	.47	.49	.51	.53	.55	.58	.60
	723	695	668	644	622	603	585	573	565	560	559	561	567	577	590	607	626	649	680	709	739	772	806	841
15	.55	.53	.51	.49	.48	.46	.45	.44	.44	.43	.43	.44	.44	.45	.46	.47	.48	.50	.52	.54	.57	.59	.61	.64
	737	708	681	657	636	617	598	587	579	574	573	576	582	592	606	622	642	665	696	725	755	788	821	856
30	.56	.53	.52	.50	.48	.47	.46	.45	.44	.44	.44	.44	.45	.46	.47	.48	.49	.51	.53	.55	.57	.60	.62	.65
	746	718	691	666	645	626	608	596	589	584	584	587	593	603	617	634	654	677	708	737	767	799	833	867
45	.56	.54	.52	.50	.49	.47	.46	.45	.45	.45	.45	.45	.45	.46	.47	.48	.50	.52	.54	.56	.58	.60	.63	.65
	752	723	696	672	650	632	614	602	595	591	590	593	600	611	625	642	662	685	716	745	775	807	840	874

MAY-AUG

40 S

TABLE B-1

SOLAR PARAMETERS

COS 2

X0 (W/M**2.)

*** SIGNIFIES COS 2 =1.

ADD 1000 TO VALUES PRECEDED BY .

MST	MAY					JUN					JUL					AUG								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30						
1500	.34	.32	.30	.28	.27	.26	.25	.25	.24	.24	.25	.25	.26	.27	.28	.29	.31	.32	.34	.35	.38	.39	.41	.43
	452	425	401	379	362	347	334	327	324	324	327	333	342	354	369	386	405	426	453	477	502	528	554	580
15	.30	.28	.26	.25	.24	.23	.22	.21	.21	.21	.21	.22	.23	.24	.25	.26	.27	.29	.31	.32	.34	.36	.38	.40
	404	377	353	333	315	301	289	282	279	279	283	289	299	311	325	342	361	381	408	431	456	481	506	532
30	.26	.24	.23	.21	.20	.19	.18	.18	.18	.18	.18	.18	.19	.20	.21	.22	.24	.25	.27	.29	.30	.32	.34	.36
	353	327	304	283	266	253	241	235	232	232	236	243	252	264	278	295	314	334	360	383	406	431	456	481
45	.22	.20	.19	.17	.16	.15	.14	.14	.14	.14	.14	.15	.15	.16	.17	.19	.20	.21	.23	.25	.27	.28	.30	.32
	300	274	251	232	215	202	191	185	182	183	187	194	203	215	229	246	264	284	309	331	355	378	402	427
1600	.18	.16	.15	.13	.12	.11	.10	.10	.10	.10	.10	.11	.12	.12	.13	.15	.16	.17	.19	.21	.23	.24	.26	.28
	244	219	197	177	162	149	138	133	131	132	135	142	152	164	178	194	212	231	256	278	300	323	347	371
15	.14	.12	.10	.09	.08	.07	.06	.06	.06	.06	.06	.07	.07	.08	.09	.11	.12	.13	.15	.17	.18	.20	.22	.23
	187	162	140	121	106	094	084	079	077	078	082	089	098	110	124	140	157	176	200	222	244	266	289	312
30	.09	.08	.06	.05	.04	.03	.02	.02	.02	.02	.02	.03	.03	.04	.05	.06	.08	.09	.11	.12	.14	.16	.17	.19
	127	103	082	064	049	037	027	023	021	023	027	034	043	055	068	084	101	119	143	164	185	207	229	251
45	.05	.03	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.02	.03	.05	.06	.03	.09	.11	.13	.14
	066	042	022	004	000	000	000	000	000	000	000	000	000	000	011	026	043	061	084	104	125	146	168	189
1700	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.03	.05	.06	.08	.09
	004	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	001	024	043	063	084	105	126
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.03	.05
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	020	040	061
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000

MAY-AUG 40 S TABLE B-1 SOLAR PARAMETERS COS Z *** SIGNIFIES COS Z =1.
 XO (W/M*2.) ADD 1000 TO VALUES PRECEDED BY *

MST	SEP							OCT							DATE							NOV							DEC						
	5	10	15	20	25	30		5	10	15	20	25	30		5	10	15	20	25	30		5	10	15	20	25	30		5	10	15	20	25	30	
0700	.12	.15	.18	.20	.23	.26		.29	.31	.33	.36	.38	.39		.41	.43	.44	.44	.45	.45		.45	.45	.45	.44	.44	.43		.45	.45	.45	.44	.44	.43	
	163	200	239	277	316	354		391	427	460	492	521	547		574	593	609	622	631	637		639	633	635	628	619	607		639	633	635	628	619	607	
15	.17	.20	.22	.25	.28	.31		.33	.36	.38	.40	.42	.44		.45	.47	.48	.49	.49	.50		.50	.50	.49	.49	.48	.47		.50	.50	.49	.49	.48	.47	
	227	265	303	342	380	418		455	491	524	556	584	610		637	656	672	684	693	699		701	703	697	690	681	669		701	703	697	690	681	669	
30	.22	.24	.27	.30	.33	.35		.38	.40	.43	.45	.47	.48		.50	.51	.52	.53	.54	.54		.54	.54	.54	.53	.52	.52		.54	.54	.54	.53	.52	.52	
	290	327	366	405	443	481		518	553	587	618	646	672		693	717	733	745	753	759		761	761	757	751	742	731		761	761	757	751	742	731	
45	.26	.29	.32	.34	.37	.40		.42	.45	.47	.49	.51	.53		.54	.56	.57	.57	.58	.58		.58	.58	.58	.57	.57	.56		.58	.58	.58	.57	.57	.56	
	351	388	427	466	505	542		579	614	647	678	706	731		753	776	791	803	812	817		820	819	816	810	801	790		820	819	816	810	801	790	
0800	.30	.33	.36	.39	.41	.44		.47	.49	.51	.53	.55	.57		.59	.60	.61	.61	.62	.62		.62	.62	.62	.61	.61	.60		.62	.62	.62	.61	.61	.60	
	409	448	486	525	564	601		638	672	705	736	764	789		815	833	848	860	868	874		876	875	873	867	859	848		876	875	873	867	859	848	
15	.35	.37	.40	.43	.46	.48		.51	.53	.55	.57	.59	.61		.62	.64	.64	.65	.66	.66		.66	.66	.66	.65	.65	.64		.66	.66	.65	.65	.65	.64	
	466	504	543	582	620	658		694	728	761	791	819	844		869	887	902	914	922	928		931	930	927	922	914	904		931	930	927	922	914	904	
30	.39	.41	.44	.47	.49	.52		.55	.57	.59	.61	.63	.64		.66	.67	.68	.69	.69	.70		.70	.70	.69	.69	.68	.68		.70	.70	.69	.69	.68	.68	
	521	559	597	636	674	711		747	782	814	844	871	896		921	939	954	965	974	980		982	982	980	974	967	957		982	982	980	974	967	957	
45	.42	.45	.48	.51	.53	.56		.58	.61	.63	.65	.66	.68		.70	.71	.72	.72	.73	.73		.73	.73	.73	.72	.72	.71		.73	.73	.73	.72	.72	.71	
	572	610	649	687	725	762		798	832	864	894	921	945		970	988	1002	1014	1023	1028		*031	*031	*029	*024	*017	*008		*031	*031	*029	*024	*017	*008	
0900	.46	.49	.51	.54	.57	.59		.62	.64	.66	.68	.70	.71		.73	.74	.75	.76	.76	.76		.76	.75	.76	.76	.75	.75		.76	.75	.76	.76	.75	.75	
	621	659	697	736	773	810		846	879	911	940	967	991		*016	*033	*048	*060	*068	*074		*077	*073	*076	*071	*065	*056		*077	*073	*076	*071	*065	*056	
15	.49	.52	.55	.57	.60	.63		.65	.67	.69	.71	.73	.74		.76	.77	.78	.79	.79	.79		.79	.79	.79	.79	.78	.78		.79	.79	.79	.79	.78	.78	
	666	704	743	781	818	855		890	923	954	983	1010	1034		*056	*076	*090	*102	*111	*117		*120	*121	*119	*115	*109	*101		*120	*121	*119	*115	*109	*101	
30	.53	.55	.58	.61	.63	.66		.68	.70	.72	.74	.76	.77		.79	.80	.81	.81	.82	.82		.82	.82	.82	.82	.81	.81		.82	.82	.82	.82	.81	.81	
	709	746	784	822	859	896		930	963	994	1023	1049	1073		*097	*115	*129	*141	*150	*156		*160	*161	*160	*156	*151	*143		*160	*161	*160	*156	*151	*143	
45	.55	.58	.61	.63	.66	.68		.71	.73	.75	.77	.78	.80		.81	.82	.83	.84	.84	.85		.85	.85	.85	.84	.84	.84		.85	.85	.85	.84	.84	.84	
	747	785	823	860	897	933		967	1000	1031	1059	1085	1108		*133	*150	*164	*176	*185	*192		*196	*197	*195	*194	*189	*182		*196	*197	*195	*194	*189	*182	

SEP-DEC 40 S TABLE B-1 SOLAR PARAMETERS COS Z *** SIGNIFIES COS Z = 1.
X0 (W/M**2.) ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					DATE					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1000	.58	.61	.63	.66	.68	.71	.73	.75	.77	.79	.81	.82	.84	.85	.86	.87	.87	.86	.87	.87	.87	.87	.86	.86	
	782	820	857	895	931	966	*000*033*063*091*117*140						*164*161*196*208*217*224					*228*230*230*227*223*217							
15	.60	.63	.66	.68	.71	.73	.75	.77	.79	.81	.83	.84	.86	.87	.87	.88	.89	.89	.88	.89	.89	.89	.88	.88	
	814	851	888	925	961	996	*029*061*091*119*144*167						*191*209*223*235*245*252					*257*259*259*257*254*248							
30	.62	.65	.68	.70	.72	.75	.77	.79	.81	.83	.84	.86	.88	.89	.89	.90	.90	.91	.91	.91	.91	.91	.91	.90	
	841	878	915	951	987	021	*054*086*116*143*168*191						*215*232*247*259*269*276					*281*281*236*284*281*276							
45	.64	.67	.69	.72	.74	.76	.78	.80	.82	.84	.86	.87	.89	.90	.90	.91	.92	.92	.92	.92	.92	.92	.92	.92	
	864	901	937	973	008	042	*075*106*136*163*188*210						*234*251*266*279*289*296					*302*305*307*306*304*299							
1100	.66	.68	.71	.73	.75	.78	.80	.82	.84	.85	.87	.88	.89	.90	.91	.92	.92	.93	.93	.94	.94	.94	.93	.93	
	883	919	955	991	026	059	*092*122*151*178*203*225						*249*266*281*294*304*312					*318*322*321*324*322*319							
15	.67	.69	.72	.74	.76	.78	.81	.83	.84	.86	.88	.89	.90	.91	.92	.93	.94	.94	.94	.94	.95	.95	.95	.94	
	898	934	969	004	039	072	*104*134*162*189*213*236						*260*277*292*305*316*324					*331*335*338*338*337*334							
30	.67	.70	.72	.75	.77	.79	.81	.83	.85	.87	.88	.89	.90	.91	.92	.93	.94	.94	.95	.95	.95	.95	.95	.95	
	909	944	979	014	047	080	*111*141*169*196*220*242						*266*283*299*312*323*332					*339*344*347*348*348*346							
45	.68	.70	.73	.75	.77	.79	.81	.83	.85	.87	.88	.90	.91	.92	.93	.94	.94	.95	.95	.95	.95	.96	.96	.96	
	915	950	984	018	051	084	*114*144*172*198*222*244						*260*285*301*314*326*335					*343*343*352*354*354*353							
1200	.68	.70	.73	.75	.77	.79	.81	.83	.85	.86	.88	.89	.90	.91	.92	.93	.94	.94	.95	.95	.95	.96	.96	.96	
	917	951	985	018	051	083	*113*142*170*195*219*241						*205*263*299*313*324*334					*343*343*352*356*356*355							
15	.68	.70	.72	.75	.77	.79	.81	.83	.84	.86	.87	.89	.90	.91	.92	.93	.94	.94	.94	.95	.95	.95	.96	.96	
	914	948	981	014	046	077	*107*136*163*188*212*234						*259*276*292*306*319*329					*338*345*350*353*354*354							
30	.67	.70	.72	.74	.76	.78	.80	.82	.84	.85	.87	.88	.89	.91	.92	.92	.93	.94	.94	.94	.95	.95	.95	.95	
	907	940	973	005	037	068	*097*125*152*177*201*223						*247*265*281*298*309*320					*329*336*342*346*348*348							
45	.66	.69	.71	.73	.75	.77	.79	.81	.82	.84	.86	.87	.88	.89	.90	.91	.92	.93	.93	.93	.94	.94	.95	.95	
	896	928	961	992	023	053	*082*110*137*162*185*207						*231*250*266*281*294*306					*316*321*330*335*357*338							

*** SIGNIFIES COS 2 = 1.
ADD 1000 TO VALUES PRECEDED BY .

SOLAR PARAMETERS COS 2
XO (W/M.*2.)

TABLE B-1

SEP-DEC 40 S

MST	SEP					OCT					DATE					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1300	.65	.68	.70	.72	.74	.76	.78	.79	.81	.83	.84	.85	.87	.88	.89	.90	.91	.92	.92	.93	.93	.93	.94	.94	
	880	912	944	975	005	035	*063	*091	*117	*142	*165	*187	*211	*230	*247	*262	*276	*288	*298	*307	*314	*319	*323	*324	
15	.64	.66	.68	.70	.72	.74	.76	.78	.79	.81	.82	.84	.85	.86	.87	.88	.89	.90	.91	.91	.92	.92	.92	.92	
	861	892	923	953	983	012	*040	*067	*093	*117	*141	*163	*187	*206	*223	*239	*253	*266	*277	*285	*294	*300	*304	*306	
30	.62	.64	.66	.68	.70	.72	.74	.76	.77	.79	.80	.82	.83	.84	.85	.86	.87	.88	.89	.89	.90	.90	.91	.91	
	837	867	897	927	956	985	*012	*039	*065	*089	*112	*134	*158	*178	*196	*212	*227	*240	*252	*262	*270	*276	*281	*284	
45	.60	.62	.64	.66	.68	.70	.72	.73	.75	.76	.78	.79	.81	.82	.83	.84	.85	.86	.87	.87	.88	.88	.89	.89	
	808	838	868	897	926	954	981	*007	*032	*057	*080	*102	*127	*146	*164	*181	*196	*210	*222	*233	*242	*249	*254	*257	
1400	.58	.60	.62	.64	.65	.67	.69	.71	.72	.74	.75	.77	.78	.80	.81	.82	.83	.84	.84	.85	.85	.86	.86	.87	
	777	806	835	863	891	919	946	971	996	*021	*044	*066	*091	*111	*129	*146	*162	*177	*189	*200	*210	*218	*223	*227	
15	.55	.57	.59	.61	.63	.64	.66	.68	.69	.71	.72	.74	.75	.77	.78	.79	.80	.81	.82	.83	.83	.84	.84	.84	
	741	769	798	826	853	880	906	932	957	981	*004	*026	*052	*072	*090	*108	*124	*139	*153	*164	*174	*183	*189	*193	
30	.52	.54	.56	.58	.60	.61	.63	.65	.66	.68	.69	.71	.72	.74	.75	.76	.77	.78	.79	.80	.80	.81	.81	.82	
	701	729	757	784	811	838	864	889	913	937	960	983	*009	*029	*048	*066	*083	*099	*113	*125	*136	*144	*151	*156	
45	.49	.51	.53	.54	.56	.58	.60	.61	.63	.64	.66	.67	.69	.70	.72	.73	.74	.75	.76	.77	.77	.78	.78	.79	
	659	686	713	740	766	792	817	842	867	891	914	936	962	983	*003	*021	*038	*055	*069	*082	*093	*103	*110	*115	
1500	.45	.47	.49	.51	.53	.54	.56	.58	.59	.61	.62	.64	.66	.67	.68	.69	.71	.72	.73	.73	.74	.75	.75	.76	
	612	639	665	691	717	743	768	793	817	841	864	886	913	934	954	973	991	*007	*023	*035	*048	*058	*065	*071	
15	.42	.44	.45	.47	.49	.51	.52	.54	.55	.57	.59	.60	.62	.63	.64	.66	.67	.68	.69	.70	.71	.71	.72	.72	
	563	589	615	640	666	691	716	740	764	788	811	834	860	882	902	922	940	957	973	987	999	*010	*018	*024	
30	.38	.40	.41	.43	.45	.47	.48	.50	.51	.53	.55	.56	.58	.59	.61	.62	.63	.64	.65	.65	.67	.68	.68	.69	
	511	536	561	586	611	636	660	685	708	732	756	779	805	827	848	868	887	905	921	935	948	959	968	974	
45	.34	.36	.37	.39	.41	.42	.44	.46	.47	.49	.50	.52	.54	.55	.57	.58	.59	.60	.61	.62	.63	.64	.65	.65	
	456	481	505	530	554	578	603	627	650	674	698	721	748	770	792	812	831	850	866	881	895	906	915	921	

SEP-DEC 40 S TABLE B-1 SOLAR PARAMETERS COS Z *** SIGNIFIES COS Z = 1.
 X0 (W/M*2.) ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					DATE					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1600	.30	.31	.33	.35	.36	.38	.40	.41	.43	.44	.46	.48	.49	.51	.52	.54	.55	.56	.57	.59	.59	.60	.61	.61	
	399	423	447	471	495	519	543	566	590	614	637	661	688	711	733	754	774	792	809	825	839	850	859	868	
15	.25	.27	.29	.30	.32	.33	.35	.37	.38	.40	.42	.43	.45	.47	.48	.49	.51	.52	.53	.54	.55	.56	.57	.57	
	340	363	387	410	433	457	481	504	528	552	575	599	627	650	672	693	714	733	751	767	781	792	802	809	
30	.21	.22	.24	.26	.27	.29	.30	.32	.34	.35	.37	.39	.40	.42	.44	.45	.46	.48	.49	.50	.51	.52	.53	.53	
	279	301	324	347	370	393	417	440	464	488	512	535	564	587	610	631	652	672	690	705	721	733	743	750	
45	.16	.18	.19	.21	.22	.24	.26	.27	.29	.31	.32	.34	.36	.37	.39	.41	.42	.43	.45	.45	.47	.48	.48	.49	
	216	238	260	283	305	328	351	375	398	422	446	470	499	523	546	568	589	609	628	645	659	672	682	689	
1700	.11	.13	.14	.16	.18	.19	.21	.22	.24	.26	.27	.29	.31	.33	.34	.36	.37	.39	.40	.41	.42	.43	.44	.44	
	151	173	195	217	239	262	285	308	332	356	380	404	433	457	481	504	525	546	565	582	597	609	619	627	
15	.06	.08	.10	.11	.13	.14	.16	.18	.19	.21	.23	.24	.26	.28	.30	.31	.33	.34	.36	.37	.38	.39	.39	.40	
	086	107	128	150	172	195	217	241	264	288	313	337	367	391	415	438	460	481	500	519	533	546	556	563	
30	.02	.03	.05	.06	.08	.09	.11	.13	.14	.16	.18	.19	.22	.23	.25	.27	.28	.30	.31	.32	.33	.34	.35	.35	
	020	040	061	083	104	127	149	173	196	220	245	270	300	324	349	372	395	416	435	453	468	481	492	499	
45	.00	.00	.00	.01	.03	.04	.06	.08	.09	.11	.13	.15	.17	.18	.20	.22	.23	.25	.26	.28	.29	.30	.30	.31	
	000	000	000	015	036	058	081	104	128	152	177	202	232	257	282	306	329	350	370	388	404	417	427	434	
1800	.00	.00	.00	.00	.00	.00	.01	.03	.04	.06	.08	.10	.12	.14	.15	.17	.19	.20	.22	.23	.24	.25	.26	.26	
	000	000	000	000	000	000	012	036	059	084	109	134	165	190	215	240	263	285	305	323	338	352	362	369	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.03	.05	.07	.09	.11	.12	.14	.16	.17	.18	.19	.20	.21	.22	
	000	000	000	000	000	000	000	000	000	016	041	067	098	124	149	174	197	219	239	258	273	287	297	304	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.04	.06	.08	.09	.11	.12	.14	.15	.16	.16	.17	
	000	000	000	000	000	000	000	000	000	000	000	000	032	053	083	108	132	154	175	193	209	222	232	239	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.03	.05	.06	.08	.09	.10	.11	.12	.12	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	018	043	067	090	110	129	145	158	168	175	

SEP-DEC 40 S TABLE B-1 SOLAR PARAMETERS COS Z *** SIGNIFIES COS Z = 1.
 X0 (W/M**2.) ADD 1000 TO VALUES PRECEDED BY *

MST	DATE										DATE									
	JAN					FEB					MAR					APR				
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
0600	.33	.32	.31	.30	.28	.26	.24	.21	.19	.16	.14	.11	.07	.04	.02	.00	.00	.00	.00	.00
	471	459	440	419	394	367	337	299	266	231	195	158	698	661	624	600	600	600	600	600
15	.36	.35	.34	.33	.31	.29	.27	.24	.22	.20	.17	.15	.10	.08	.05	.02	.00	.00	.00	.00
	514	502	483	462	438	411	381	343	310	275	239	203	141	106	069	032	000	000	000	000
30	.39	.38	.37	.36	.34	.32	.30	.28	.25	.23	.20	.18	.14	.11	.08	.06	.03	.00	.00	.00
	556	544	526	505	481	454	425	388	354	320	284	243	189	152	114	077	041	005	000	000
45	.42	.41	.40	.39	.37	.35	.33	.31	.28	.26	.24	.21	.17	.14	.12	.09	.06	.04	.01	.00
	598	586	569	548	524	498	469	432	399	364	329	293	234	196	159	122	085	049	006	000
0700	.45	.44	.43	.42	.40	.38	.36	.34	.32	.29	.27	.24	.20	.17	.15	.12	.09	.07	.04	.01
	640	628	611	590	567	541	512	475	443	409	373	337	278	241	204	166	129	093	050	015
15	.48	.47	.46	.45	.43	.41	.39	.37	.35	.32	.30	.27	.23	.21	.18	.15	.13	.10	.07	.04
	681	669	652	632	609	583	555	518	486	452	417	381	322	285	247	210	173	136	092	057
30	.51	.50	.49	.48	.46	.44	.42	.40	.38	.35	.33	.30	.25	.24	.21	.18	.16	.13	.10	.07
	721	710	693	673	650	625	597	561	528	495	460	424	365	328	290	253	215	178	134	099
45	.54	.53	.52	.50	.49	.47	.45	.43	.41	.38	.36	.33	.29	.27	.24	.21	.19	.16	.13	.10
	760	749	732	713	690	665	638	602	570	537	502	466	408	370	332	295	257	220	175	139
0800	.56	.56	.55	.53	.52	.50	.48	.46	.43	.41	.39	.36	.32	.30	.27	.24	.22	.19	.16	.13
	798	787	771	752	729	705	678	642	611	577	543	507	448	411	373	335	297	260	215	178
15	.59	.58	.57	.56	.54	.53	.51	.48	.46	.44	.42	.39	.35	.33	.30	.27	.24	.22	.19	.16
	834	824	808	789	767	743	716	681	650	617	582	547	488	451	413	374	336	298	253	215
30	.61	.61	.60	.58	.57	.55	.53	.51	.49	.47	.44	.42	.38	.35	.33	.30	.27	.24	.21	.19
	869	859	844	825	804	780	753	718	687	655	620	585	526	489	450	412	373	335	289	252
45	.64	.63	.62	.61	.59	.58	.56	.54	.52	.49	.47	.45	.40	.38	.35	.32	.30	.27	.24	.21
	903	893	878	860	839	815	789	754	724	691	657	621	563	525	487	448	409	370	324	285

JAN-APR 60 S TABLE 8-1 SOLAR PARAMETERS COS Z *** SIGNIFIES COS Z =1.
 ADD 1000 TO VALUES PRECEDED BY *

MST	JAN					FEB					MAR					APR								
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30					
0900	.66	.65	.64	.63	.62	.60	.58	.56	.54	.52	.49	.47	.43	.40	.38	.35	.32	.29	.26	.23	.21	.18	.16	.13
	934	925	910	892	872	848	822	788	758	725	691	656	597	559	521	482	443	404	357	310	281	245	209	176
15	.68	.67	.66	.65	.64	.62	.61	.58	.56	.54	.52	.49	.45	.43	.40	.37	.35	.32	.28	.25	.23	.20	.18	.15
	964	955	940	923	903	880	854	821	790	758	724	689	630	592	553	514	474	435	388	343	311	274	239	204
30	.70	.69	.68	.67	.66	.64	.63	.60	.58	.56	.54	.52	.47	.45	.42	.39	.37	.34	.31	.28	.25	.22	.20	.17
	991	982	968	951	932	909	884	851	821	788	755	719	660	622	583	544	504	464	417	379	339	302	266	231
45	.72	.71	.70	.69	.68	.66	.65	.62	.60	.58	.56	.54	.50	.47	.44	.41	.39	.36	.32	.30	.27	.24	.22	.19
	1017	1008	995	978	959	936	911	879	849	817	783	748	689	650	611	571	531	491	443	404	365	327	290	255
1000	.73	.73	.72	.71	.70	.68	.66	.64	.62	.60	.58	.55	.51	.49	.46	.43	.40	.38	.34	.31	.29	.26	.23	.21
	1040	1031	1018	1002	983	961	937	904	874	843	809	774	715	676	637	597	556	516	467	427	388	350	313	278
15	.75	.74	.74	.72	.71	.70	.68	.66	.64	.62	.60	.57	.53	.50	.48	.45	.42	.39	.36	.33	.30	.27	.25	.22
	1060	1052	1040	1024	1005	984	960	927	898	866	833	797	738	699	660	619	578	538	489	449	409	370	333	297
30	.76	.76	.75	.74	.73	.71	.70	.67	.65	.63	.61	.59	.55	.52	.49	.46	.43	.41	.37	.34	.31	.29	.26	.23
	1079	1071	1059	1043	1025	1004	980	948	919	887	854	818	759	720	680	639	598	557	507	467	427	388	350	314
45	.77	.77	.76	.75	.74	.72	.71	.69	.67	.65	.62	.60	.56	.53	.50	.48	.45	.42	.38	.35	.33	.30	.27	.24
	1094	1087	1075	1060	1042	1021	998	966	937	906	872	837	777	738	698	657	615	574	524	483	442	403	365	329
1100	.78	.78	.77	.76	.75	.73	.72	.70	.68	.66	.63	.61	.57	.54	.52	.49	.46	.43	.39	.35	.33	.31	.28	.25
	1107	1100	1089	1074	1057	1036	1013	981	952	921	888	852	792	753	712	671	629	587	537	495	455	415	377	341
15	.79	.79	.78	.77	.76	.74	.73	.71	.69	.67	.64	.62	.58	.55	.52	.50	.47	.44	.40	.37	.34	.31	.29	.26
	1117	1111	1100	1086	1068	1048	1025	994	965	934	901	865	805	765	725	683	641	599	548	505	465	425	387	350
30	.80	.79	.78	.77	.76	.75	.73	.71	.69	.67	.65	.63	.59	.56	.53	.50	.47	.44	.41	.38	.35	.32	.29	.26
	1125	1119	1108	1094	1078	1058	1035	1004	975	944	911	875	815	775	734	692	649	607	556	514	472	432	393	356
45	.80	.79	.79	.78	.77	.75	.74	.72	.70	.68	.65	.63	.59	.56	.54	.51	.48	.45	.41	.38	.35	.32	.29	.27
	1130	1124	1114	1100	1084	1064	1042	1011	982	951	918	882	821	781	740	698	655	612	561	519	477	436	397	360

... SIGNIFIES COS 2 +1.
ADD 1000 TO VALUES PRECEDED 3Y +

SOLAR PARAMETERS COS 2
XO (W/M+2.)

JAN-APR 60 S

TABLE B-1

... SIGNIFIES COS Z ⁴¹.
ADD 1000 TO VALUES PRECEDED BY .

SOLAR PARAMETERS COS Z
XO (W/M*2.)

TABLE B-1

60 S

JAN-APR

MST

DATE

	JAN					FEB					MAR					APR								
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30					
1200	.80	.80	.79	.78	.77	.76	.74	.72	.70	.68	.66	.63	.59	.57	.54	.51	.48	.45	.41	.39	.35	.32	.29	.27
	.132	.126	.116	.103	.087	.068	.046	.015	.987	.955	.922	.886	.825	.785	.743	.701	.658	.615	.563	.520	.478	.437	.398	.361
15	.80	.80	.79	.78	.77	.76	.74	.72	.70	.68	.66	.64	.59	.57	.54	.51	.48	.45	.41	.39	.35	.32	.29	.27
	.131	.126	.116	.104	.088	.069	.047	.016	.988	.957	.923	.887	.826	.786	.744	.701	.658	.614	.562	.519	.477	.436	.396	.359
30	.80	.79	.79	.78	.77	.76	.74	.72	.70	.68	.66	.63	.59	.56	.54	.51	.48	.45	.41	.39	.35	.32	.29	.26
	.127	.123	.113	.101	.086	.067	.045	.015	.986	.955	.922	.886	.824	.783	.741	.698	.655	.611	.558	.515	.472	.431	.392	.354
45	.79	.79	.78	.78	.76	.75	.74	.72	.70	.68	.66	.63	.59	.56	.53	.50	.47	.44	.40	.37	.34	.31	.28	.26
	.121	.117	.108	.096	.080	.062	.040	.010	.982	.951	.917	.881	.819	.778	.736	.692	.648	.604	.551	.503	.455	.424	.384	.347
1300	.79	.78	.78	.77	.76	.75	.73	.71	.69	.67	.65	.63	.58	.56	.53	.50	.46	.43	.40	.37	.34	.31	.28	.25
	.112	.108	.099	.088	.073	.054	.033	.003	.974	.943	.909	.873	.811	.770	.727	.684	.639	.595	.542	.498	.455	.414	.374	.337
15	.78	.77	.77	.76	.75	.74	.73	.71	.69	.67	.64	.62	.58	.55	.52	.49	.46	.42	.39	.35	.33	.30	.27	.24
	.100	.096	.088	.077	.062	.044	.022	.992	.964	.933	.899	.853	.800	.759	.716	.672	.628	.583	.529	.485	.442	.401	.361	.324
30	.77	.76	.76	.75	.74	.73	.72	.70	.68	.66	.63	.61	.57	.54	.51	.48	.45	.41	.38	.35	.31	.28	.26	.23
	.086	.082	.074	.063	.049	.031	.009	.979	.951	.920	.886	.849	.786	.745	.702	.658	.613	.568	.514	.470	.427	.385	.346	.308
45	.76	.75	.75	.74	.73	.72	.70	.68	.67	.64	.62	.60	.55	.52	.50	.46	.43	.40	.36	.33	.30	.27	.24	.22
	.069	.065	.058	.047	.033	.015	.993	.984	.935	.904	.870	.833	.770	.728	.685	.640	.595	.550	.496	.452	.409	.367	.327	.290
1400	.74	.74	.73	.73	.72	.71	.69	.67	.65	.63	.61	.58	.54	.51	.48	.45	.42	.39	.35	.32	.29	.26	.23	.20
	.049	.046	.039	.028	.014	.996	.975	.945	.917	.885	.851	.814	.751	.709	.665	.621	.575	.530	.476	.431	.388	.347	.307	.269
15	.73	.72	.72	.71	.70	.69	.68	.66	.64	.62	.59	.57	.52	.50	.46	.43	.40	.37	.33	.30	.27	.24	.21	.18
	.027	.024	.017	.007	.993	.975	.954	.924	.896	.864	.830	.793	.729	.687	.643	.598	.553	.507	.453	.408	.365	.323	.284	.246
30	.71	.71	.70	.70	.69	.67	.66	.64	.62	.60	.58	.55	.51	.48	.45	.42	.38	.35	.31	.29	.25	.22	.19	.16
	.063	.060	.053	.043	.033	.023	.013	.901	.872	.840	.806	.769	.705	.662	.618	.573	.527	.482	.427	.383	.339	.298	.258	.221
45	.69	.69	.68	.68	.67	.66	.64	.62	.60	.58	.56	.53	.49	.46	.43	.40	.36	.33	.29	.25	.23	.20	.17	.14
	.977	.974	.967	.957	.943	.926	.905	.875	.846	.814	.780	.742	.676	.635	.591	.546	.500	.454	.399	.355	.312	.270	.230	.193

JAN-APR 60 S TABLE B-1 SOLAR PARAMETERS COS 2 *** SIGNIFIES COS 2 =1.
 X0 (W/M**2.) ADD 1000 TO VALUES PRECEDED BY *

MST	DATE																							
	JAN				FEB				MAR				APR											
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30					
1500	.67	.67	.66	.66	.65	.64	.62	.60	.58	.56	.54	.51	.47	.44	.41	.37	.34	.31	.27	.24	.21	.18	.15	.12
	948	945	939	929	915	898	876	846	818	786	751	713	642	606	561	516	470	424	369	325	282	240	201	164
15	.65	.65	.64	.64	.63	.61	.60	.58	.56	.54	.51	.49	.44	.41	.38	.35	.32	.29	.25	.22	.18	.15	.13	.10
	917	915	909	899	885	867	846	816	787	755	720	682	617	574	529	484	438	392	337	293	250	208	169	132
30	.63	.62	.62	.61	.60	.59	.58	.56	.54	.52	.49	.47	.42	.39	.36	.33	.29	.26	.22	.19	.16	.13	.10	.07
	885	882	876	866	853	835	814	784	755	722	687	649	584	540	496	450	404	358	303	259	216	174	135	099
45	.60	.60	.60	.59	.58	.57	.55	.53	.51	.49	.47	.44	.39	.36	.33	.30	.27	.24	.20	.16	.13	.10	.07	.05
	850	848	842	832	819	801	780	749	720	688	652	614	543	505	460	414	368	322	267	223	180	139	100	064
1600	.58	.57	.57	.56	.55	.54	.53	.51	.49	.46	.44	.41	.37	.34	.31	.27	.24	.21	.17	.14	.11	.08	.05	.02
	815	812	806	797	783	765	744	713	684	651	616	577	511	468	423	377	331	284	230	185	143	102	063	027
15	.55	.55	.54	.54	.53	.52	.50	.48	.46	.44	.41	.39	.34	.31	.28	.25	.21	.18	.14	.11	.08	.05	.02	.00
	777	775	769	759	746	728	706	675	646	613	577	539	473	429	384	338	291	245	191	147	104	063	025	000
30	.52	.52	.52	.51	.50	.49	.47	.45	.43	.41	.38	.36	.31	.28	.25	.22	.18	.15	.11	.08	.05	.02	.00	.00
	739	737	731	721	707	689	667	636	607	574	538	499	432	388	343	297	251	205	150	105	064	024	000	000
45	.49	.49	.49	.48	.47	.46	.45	.42	.40	.38	.36	.33	.28	.25	.22	.19	.15	.12	.08	.05	.02	.00	.00	.00
	699	697	691	681	667	649	627	596	566	533	497	458	391	347	302	256	209	163	109	065	023	000	000	000
1700	.47	.46	.46	.45	.44	.43	.42	.39	.37	.35	.33	.30	.25	.22	.19	.15	.12	.09	.05	.02	.00	.00	.00	.00
	658	657	650	640	626	608	586	554	524	491	455	415	348	304	259	213	167	121	067	023	000	000	000	000
15	.44	.43	.43	.42	.41	.40	.39	.36	.34	.32	.29	.27	.22	.19	.16	.12	.09	.06	.02	.00	.00	.00	.00	.00
	617	615	609	599	584	566	544	512	482	448	411	372	305	261	215	169	123	077	023	000	000	000	000	000
30	.41	.41	.40	.39	.38	.37	.36	.33	.31	.29	.26	.24	.19	.16	.12	.09	.06	.02	.00	.00	.00	.00	.00	.00
	575	573	567	557	542	523	501	469	438	405	368	328	261	216	171	125	079	033	000	000	000	000	000	000
45	.38	.38	.37	.36	.35	.34	.32	.30	.28	.26	.23	.20	.16	.12	.09	.06	.03	.00	.00	.00	.00	.00	.00	.00
	533	531	524	514	499	480	458	425	394	360	323	284	216	171	126	080	034	000	000	000	000	000	000	000

JAN-APR 60 S TABLE B-1 SOLAR PARAMETERS COS Z *** SIGNIFIES COS Z = 1.
 X0 (W/M-+2.) ADD 1000 TO VALUES PRECEDED BY +

MST	JAN												FEB					MAR					APR																			
	1	5	10	15	20	25	30		5	10	15	20	25	30		5	10	15	20	25	30		5	10	15	20	25	30														
1800	.35	.35	.34	.33	.32	.31	.29		.27	.25	.23	.20	.17		.12	.09	.06	.03	.00	.00		.00	.03	.00	.00	.00	.00		.00	.03	.00	.00	.00	.00		.00	.03	.00	.00	.00	.00	
	490	488	482	471	456	437	414		381	350	316	279	239		171	126	081	035	000	000		000	000	000	000	000		000	000	000	000	000	000		000	000	000	000	000	000		
	15	.32	.32	.31	.30	.29	.28	.26		.24	.22	.19	.17	.14		.09	.06	.03	.00	.00	.00		.00	.03	.00	.00	.00	.00		.00	.03	.00	.00	.00	.00		.00	.03	.00	.00	.00	.00
30	.448	.445	.439	.428	.412	.393	.370		.337	.306	.271	.234	.194		.126	.081	.036	.000	.000	.000		.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000		
	30	.29	.28	.28	.27	.26	.25	.23		.21	.19	.16	.14	.11		.06	.03	.00	.00	.00	.00		.00	.03	.00	.00	.00	.00		.00	.03	.00	.00	.00	.00		.00	.03	.00	.00	.00	.00
	405	403	396	385	369	350	326		293	261	226	189	159		080	036	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	
45	.26	.26	.25	.24	.23	.22	.20		.18	.15	.13	.10	.07		.03	.00	.00	.00	.00	.00		.00	.03	.00	.00	.00	.00		.00	.03	.00	.00	.00	.00		.00	.03	.00	.00	.00	.00	
	363	360	353	342	326	306	282		249	217	182	144	104		035	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	
	1900	.23	.23	.22	.21	.20	.19	.17		.15	.12	.10	.07	.04		.00	.00	.00	.00	.00	.00		.00	.03	.00	.00	.00	.00		.00	.03	.00	.00	.00	.00		.00	.03	.00	.00	.00	.00
15	321	319	311	299	283	263	239		205	173	138	100	059		000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	
	15	.20	.20	.19	.18	.17	.16	.14		.12	.09	.07	.04	.01		.00	.00	.00	.00	.00	.00		.00	.03	.00	.00	.00	.00		.00	.03	.00	.00	.00	.00		.00	.03	.00	.00	.00	.00
	280	277	270	258	241	221	196		162	130	094	056	016		000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	
30	.17	.17	.16	.15	.14	.13	.11		.09	.06	.04	.01	.00		.00	.00	.00	.00	.00	.00	.00		.00	.03	.00	.00	.00	.00		.00	.03	.00	.00	.00	.00		.00	.03	.00	.00	.00	.00
	240	237	229	217	200	179	155		120	087	052	013	000		000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	
	45	.14	.14	.13	.13	.11	.10	.08		.06	.03	.01	.00	.00		.00	.00	.00	.00	.00	.00		.00	.03	.00	.00	.00	.00		.00	.03	.00	.00	.00	.00		.00	.03	.00	.00	.00	.00
2000	201	198	190	177	160	139	114		079	046	010	000	000		000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	
	2000	.12	.11	.11	.10	.09	.07	.05		.03	.00	.00	.00	.00		.00	.00	.00	.00	.00	.00		.00	.03	.00	.00	.00	.00		.00	.03	.00	.00	.00	.00		.00	.03	.00	.00	.00	.00
	163	160	151	138	121	099	074		038	005	000	000	000	000		000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	
15	.09	.09	.08	.07	.06	.04	.03		.00	.00	.00	.00	.00		.00	.00	.00	.00	.00	.00	.00		.00	.03	.00	.00	.00	.00		.00	.03	.00	.00	.00	.00		.00	.03	.00	.00	.00	.00
	127	123	114	101	083	061	035		000	000	000	000	000	000		000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	
	30	.07	.06	.06	.05	.03	.02	.00		.00	.00	.00	.00	.00		.00	.00	.00	.00	.00	.00		.00	.03	.00	.00	.00	.00		.00	.03	.00	.00	.00	.00		.00	.03	.00	.00	.00	.00
45	092	088	078	065	046	024	000		000	000	000	000	000	000		000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	
	45	.04	.04	.03	.02	.01	.00	.00		.00	.00	.00	.00	.00		.00	.00	.00	.00	.00	.00		.00	.03	.00	.00	.00	.00		.00	.03	.00	.00	.00	.00		.00	.03	.00	.00	.00	.00
	059	054	044	030	012	000	000		000	000	000	000	000	000		000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000

JAN-APR 60 S TABLE B-1 SOLAR PARAMETERS COS Z *** SIGNIFIES COS Z =1.
X0 (W/M**2.) ADD 1000 TO VALUES PRECEDED BY *

MST	DATE																		
	JAN				FEB				MAR				APR						
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
2100	.02	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.00	.00
	027	022	012	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.03	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000

JAN-APR 60 S TABLE B-1 SOLAR PARAMETERS COS Z *** SIGNIFIES COS Z =1.
X0 (W/M**2.) ADD 1000 TO VALUES PRECEDED BY *

MST	DATE																			
	MAY					JUN					JUL					AUG				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30		
0700	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	022	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.05	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	023	063	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.05	.08	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	024	062	103	
0800	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.05	.08	.11	
	011	000	000	000	000	000	000	000	000	000	000	000	000	000	000	025	062	100	141	
15	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.05	.07	.13	
	047	018	000	000	000	000	000	000	000	000	000	000	000	000	000	023	062	098	137	
30	.06	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.05	.07	.13	
	081	051	024	000	000	000	000	000	000	000	000	000	000	000	000	032	063	037	133	
45	.08	.06	.04	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.07	.10	.18	
	113	083	056	030	008	000	000	000	000	000	000	000	000	000	000	065	035	130	167	
0900	.11	.08	.06	.05	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.07	.10	.12	.15	
	143	113	085	060	037	018	000	000	000	000	000	000	000	000	000	096	127	161	198	
15	.13	.11	.09	.07	.05	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.09	.12	.14	.17	
	172	141	113	088	065	045	026	013	004	000	000	000	000	000	000	125	157	191	228	
30	.15	.13	.10	.09	.07	.05	.04	.03	.02	.02	.02	.02	.02	.02	.02	.11	.14	.16	.19	
	198	167	139	113	090	070	051	038	029	024	022	025	025	025	025	152	181	219	256	
45	.17	.14	.12	.10	.09	.07	.06	.05	.04	.04	.04	.04	.04	.04	.04	.13	.15	.18	.21	
	222	191	163	137	114	094	074	061	052	047	046	048	048	048	048	177	209	244	281	

MAY-AUG 60 S TABLE B-1 SOLAR PARAMETERS CCS Z *** SIGNIFIES COS Z = 1.
XO (W/M**2.) ADD 1000 TO VALUES PRECEDED BY .

MST	MAY					JUN					JUL					AUG								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1000	.18	.16	.14	.12	.10	.09	.07	.06	.06	.05	.05	.05	.06	.07	.08	.09	.11	.13	.15	.17	.20	.23	.26	.29
	244	213	184	158	135	115	095	082	074	069	067	070	077	087	101	119	141	166	200	232	267	304	343	384
15	.20	.17	.15	.13	.12	.10	.09	.08	.07	.07	.07	.07	.07	.08	.09	.11	.12	.14	.17	.19	.22	.24	.27	.30
	264	232	203	177	153	133	114	101	092	087	085	089	096	107	121	139	161	186	221	253	288	325	364	405
30	.21	.19	.16	.14	.13	.11	.10	.09	.08	.08	.08	.08	.09	.09	.11	.12	.14	.15	.18	.20	.23	.26	.29	.32
	280	249	220	193	170	150	130	118	109	104	102	106	113	124	139	157	179	204	239	271	305	343	382	423
45	.22	.20	.17	.16	.14	.12	.11	.10	.09	.09	.09	.09	.10	.11	.12	.13	.15	.17	.19	.22	.24	.27	.30	.33
	295	263	233	207	184	163	144	131	123	118	118	121	128	139	154	172	195	220	255	287	322	359	398	438
1100	.23	.20	.18	.16	.15	.13	.12	.11	.10	.10	.10	.10	.11	.11	.13	.14	.16	.18	.20	.23	.25	.28	.31	.34
	306	274	245	218	195	175	155	143	135	130	130	133	140	152	167	185	208	233	268	300	335	372	411	451
15	.23	.21	.19	.17	.15	.14	.12	.11	.11	.11	.11	.11	.11	.12	.13	.15	.16	.18	.21	.23	.26	.29	.31	.34
	315	283	254	227	203	183	164	152	144	139	139	143	150	162	177	196	218	244	278	311	345	382	421	461
30	.24	.22	.19	.17	.16	.14	.13	.12	.11	.11	.11	.11	.12	.13	.14	.15	.17	.19	.22	.24	.26	.29	.32	.35
	322	289	260	233	210	190	170	158	150	146	146	150	157	169	184	203	226	251	286	313	353	390	428	468
45	.24	.22	.20	.18	.16	.15	.13	.12	.12	.11	.11	.12	.12	.13	.14	.16	.17	.19	.22	.24	.27	.30	.32	.35
	325	293	263	236	213	193	174	162	154	150	150	154	162	174	189	208	231	257	291	321	358	395	433	473
1200	.24	.22	.20	.18	.16	.15	.13	.12	.12	.11	.12	.12	.12	.13	.15	.16	.18	.20	.22	.24	.27	.30	.32	.35
	326	293	264	237	214	194	175	163	155	152	152	156	164	176	192	211	233	259	294	325	360	397	435	474
15	.24	.22	.20	.18	.16	.14	.13	.12	.12	.11	.11	.12	.12	.13	.14	.16	.18	.20	.22	.24	.27	.30	.32	.35
	324	291	262	235	212	192	173	162	154	151	151	155	164	176	191	211	233	259	294	326	360	396	434	473
30	.24	.21	.19	.17	.16	.14	.13	.12	.11	.11	.11	.12	.12	.13	.14	.16	.17	.19	.22	.24	.27	.29	.32	.35
	319	287	257	230	207	188	169	158	150	147	147	152	160	173	188	208	230	256	291	322	354	392	430	469
45	.23	.21	.19	.17	.15	.14	.12	.11	.11	.11	.11	.11	.12	.13	.14	.15	.17	.19	.21	.24	.26	.29	.32	.34
	312	279	249	223	200	181	162	151	144	141	141	146	155	167	183	202	225	251	285	317	350	386	423	462

MAY-AUG 60 S TABLE B-1 SOLAR PARAMETERS COS Z *** SIGNIFIES COS Z = 1.
X0 (W/M**2.) ADD 1000 TO VALUES PRECEDED BY *

MST

DATE

	MAY					JUN					JUL					AUG								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30						
1300	.22	.20	.18	.16	.14	.13	.12	.11	.10	.10	.10	.10	.11	.12	.13	.15	.16	.18	.21	.23	.26	.28	.31	.34
	301	269	239	213	190	171		153	142	135	132	133	146	159	175	194	217	242	277	303	342	377	414	452
15	.21	.19	.17	.15	.13	.12	.11	.10	.09	.09	.09	.10	.10	.11	.12	.14	.16	.17	.20	.22	.25	.27	.30	.33
	288	256	227	200	178	159		141	130	123	120	122	135	148	164	183	206	231	266	297	330	365	402	440
30	.20	.18	.16	.14	.12	.11	.10	.09	.08	.08	.08	.09	.09	.10	.11	.13	.15	.16	.19	.21	.24	.26	.29	.32
	273	241	211	185	163	144		126	116	109	107	108	122	135	151	170	193	218	252	283	316	351	387	425
45	.19	.17	.14	.13	.11	.10	.09	.08	.07	.07	.07	.07	.08	.09	.10	.12	.13	.15	.18	.20	.22	.25	.28	.30
	255	223	194	168	145	127		109	099	093	090	092	106	119	135	154	177	202	236	267	299	334	370	407
1400	.17	.15	.13	.11	.09	.08	.07	.06	.06	.05	.06	.06	.07	.08	.09	.10	.12	.14	.16	.18	.21	.24	.26	.29
	234	202	173	148	126	107		090	080	074	072	074	083	101	117	136	159	184	217	243	280	314	350	386
15	.16	.13	.11	.09	.08	.06	.05	.04	.04	.04	.04	.04	.05	.06	.07	.09	.10	.12	.15	.17	.19	.22	.24	.27
	211	180	151	125	104	085		069	059	053	051	053	068	080	097	116	138	163	196	223	253	292	327	364
30	.14	.12	.09	.08	.06	.05	.04	.03	.03	.02	.02	.02	.03	.04	.06	.07	.09	.11	.13	.15	.18	.20	.23	.25
	186	155	126	101	079	061		045	036	030	028	030	045	058	074	093	115	140	173	203	234	268	303	338
45	.12	.10	.07	.06	.04	.03	.02	.01	.01	.00	.00	.00	.01	.02	.03	.04	.05	.07	.09	.11	.13	.16	.18	.21
	159	127	099	074	053	035		019	010	005	003	005	020	033	049	068	090	115	147	177	203	241	276	311
1500	.10	.07	.05	.03	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.02	.03	.05	.07	.09	.11	.14	.16	.18	.21
	129	098	070	046	025	007		000	000	000	000	000	000	006	022	041	063	088	120	143	180	213	246	281
15	.07	.05	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.03	.04	.07	.09	.11	.14	.16	.19
	098	067	039	015	000	000		000	000	000	000	000	000	000	000	013	034	058	090	113	150	182	215	250
30	.05	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.04	.07	.09	.11	.14	.16
	085	034	007	000	000	000		000	000	000	000	000	000	000	000	000	003	027	059	087	113	149	182	216
45	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.04	.06	.09	.11	.14
	030	000	000	000	000	000		000	000	000	000	000	000	000	000	000	000	000	026	054	084	115	148	181

MAY-AUG 60 S TABLE B-1 SOLAR PARAMETERS COS Z
 *** SIGNIFIES COS Z = 1.
 ADD 1000 TO VALUES PRECEDED BY *

MST	MAY						JUN						JUL						AUG					
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1600	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.04	.06	.08	.11
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	019	048	079	111	144
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.03	.06	.08
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	011	042	073	106
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.05
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	003	034	067
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	026

MAY-AUG 60 S TABLE B-1 SOLAR PARAMETERS COS Z ** SIGNIFIES COS Z = 1.
 X0 (W/M=+2.) ADD 1000 TO VALUES PRECEDED BY +

AD-A148 096

OPERATIONAL TACTICAL DECISION AID (OTDA) FOR INFRARED
(8-12 MICROMETERS) (U) SYSTEMS AND APPLIED SCIENCES
CORP VIENNA VA D B HODGES 30 SEP 83 SCIENTIFIC-8-VOL-3

4/4

UNCLASSIFIED

AFGL-TR-83-0334-VOL-3 F19628-81-C-0042

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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

MST	DATE												DEC											
	SEP			OCT			NOV			5			5			5			5			5		
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
0200	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
0300	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
0400	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

SEP-DEC 60 S TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M**2.) *** SIGNIFIES COS Z =1. ADD 1000 TO VALUES PRECEDED BY .

MST	SEP					OCT					DATE					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
0800	.14	.18	.21	.24	.27	.31	.34	.37	.40	.43	.45	.47	.50	.52	.54	.55	.56	.57	.58	.59	.59	.58	.57	.57	
	192	236	282	327	373	418	463	506	548	587	625	659	697	725	743	770	787	801	810	815	818	817	812	803	
15	.17	.20	.24	.27	.30	.33	.36	.40	.42	.45	.48	.50	.53	.54	.56	.57	.59	.59	.60	.60	.60	.60	.60	.59	
	229	273	319	364	410	455	500	543	584	624	661	695	733	760	785	805	823	836	846	852	854	853	848	839	
30	.20	.23	.26	.29	.33	.36	.39	.42	.45	.48	.50	.53	.55	.57	.58	.60	.61	.62	.62	.63	.63	.63	.62	.62	
	265	309	354	400	445	490	534	577	619	658	695	729	766	794	818	839	856	870	880	883	886	887	882	874	
45	.22	.25	.29	.32	.35	.38	.41	.44	.47	.50	.52	.55	.57	.59	.61	.62	.63	.64	.65	.65	.65	.65	.65	.64	
	298	343	388	433	479	523	568	610	651	691	727	761	798	826	850	871	888	902	911	913	920	920	915	907	
0900	.25	.28	.31	.34	.37	.41	.44	.47	.50	.52	.55	.57	.59	.61	.63	.64	.65	.66	.67	.67	.67	.67	.67	.66	
	330	374	419	465	510	555	599	641	682	721	757	791	824	856	880	901	918	931	942	943	951	950	946	939	
15	.27	.30	.33	.36	.40	.43	.46	.49	.52	.54	.57	.59	.61	.63	.65	.66	.67	.68	.69	.69	.69	.69	.69	.68	
	360	404	449	494	539	584	627	670	710	749	785	819	856	883	907	928	945	959	969	973	974	973	975	968	
30	.29	.32	.35	.38	.42	.45	.48	.51	.53	.56	.59	.61	.63	.65	.67	.68	.69	.70	.71	.71	.71	.71	.71	.70	
	387	431	476	521	566	610	654	696	736	775	811	845	881	909	923	954	971	985	995	002	006	006	002	995	
45	.31	.34	.37	.40	.43	.46	.49	.52	.55	.58	.60	.62	.65	.67	.68	.70	.71	.72	.72	.74	.74	.73	.73	.72	
	413	457	501	546	591	635	678	720	760	793	834	868	905	932	956	977	994	008	019	021	040	030	027	021	
1000	.32	.36	.39	.42	.45	.48	.51	.54	.57	.59	.62	.64	.66	.68	.70	.71	.72	.73	.74	.74	.74	.74	.74	.74	
	436	479	524	568	613	657	700	741	781	819	855	889	925	952	976	997	015	029	040	047	051	052	049	043	
15	.34	.37	.40	.43	.46	.49	.52	.55	.58	.61	.63	.65	.68	.69	.71	.72	.74	.74	.75	.75	.75	.76	.76	.75	
	456	500	544	588	632	676	719	760	800	838	873	907	943	970	994	015	033	047	059	063	071	072	063	064	
30	.35	.38	.41	.45	.48	.51	.54	.56	.59	.62	.64	.66	.68	.71	.72	.73	.75	.76	.76	.77	.77	.77	.77	.76	
	474	517	561	605	649	693	735	776	816	853	889	922	956	985	010	031	049	063	075	083	087	085	087	082	
45	.36	.39	.43	.46	.49	.52	.55	.57	.60	.63	.65	.67	.70	.71	.72	.74	.76	.76	.77	.79	.79	.78	.78	.78	
	489	532	576	620	663	706	748	789	829	866	901	935	971	998	022	043	062	077	088	097	101	103	102	097	

SEP-DEC 60 S ... SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY .

TABLE 2-1 SOLAR PARAMETERS COS Z
XO (M/M*2.)

MST	SEP					OCT					NOV					DEC								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1100	.37	.40	.43	.46	.50	.53	.55	.52	.61	.63	.66	.68	.70	.72	.74	.75	.76	.77	.78	.73	.79	.79	.79	.78
	502	544	588	631	675	717	759	800	839	876	911	944	931	908	882	854	827	807	.099	.103	.113	.115	.114	.110
15	.38	.41	.44	.47	.50	.53	.56	.59	.61	.64	.66	.68	.71	.73	.74	.76	.77	.78	.79	.75	.80	.80	.79	.79
	511	554	597	640	683	726	767	807	846	883	918	951	927	915	899	881	879	895	.107	.115	.122	.125	.124	.120
30	.38	.41	.45	.48	.51	.53	.56	.59	.62	.64	.67	.69	.71	.73	.75	.76	.77	.78	.79	.79	.80	.80	.80	.80
	518	560	603	646	689	731	772	812	851	888	923	955	992	1019	1044	1065	1084	1100	.112	.122	.128	.131	.131	.128
45	.39	.42	.45	.48	.51	.54	.56	.59	.62	.64	.67	.69	.71	.73	.75	.76	.77	.78	.79	.80	.80	.80	.80	.80
	522	564	607	649	691	733	774	814	852	889	924	957	993	1020	1045	1067	1086	1102	.115	.125	.131	.135	.135	.132
1200	.39	.42	.45	.48	.51	.54	.56	.59	.62	.64	.67	.69	.71	.73	.75	.76	.77	.78	.79	.80	.80	.80	.80	.80
	523	565	607	649	691	733	773	813	851	887	922	955	991	1019	1044	1066	1085	1101	.115	.125	.132	.136	.137	.134
15	.39	.42	.45	.48	.51	.53	.56	.59	.61	.64	.66	.68	.71	.73	.74	.76	.77	.78	.79	.80	.80	.80	.80	.80
	522	563	605	646	688	729	769	809	847	883	919	950	987	1014	1039	1062	1081	1098	.112	.122	.130	.134	.135	.133
30	.38	.41	.44	.47	.50	.53	.56	.58	.61	.63	.65	.68	.70	.72	.74	.75	.76	.78	.78	.79	.80	.80	.80	.80
	517	558	599	641	682	723	763	802	839	876	910	943	979	1007	1032	1055	1075	1092	.106	.117	.125	.129	.131	.129
45	.38	.41	.44	.47	.49	.52	.55	.58	.60	.63	.65	.67	.70	.71	.73	.75	.76	.77	.78	.79	.79	.79	.79	.79
	510	550	591	632	673	713	753	792	829	865	900	932	969	1007	1022	1045	1065	1083	.097	.109	.117	.122	.124	.123
1300	.37	.40	.43	.46	.49	.51	.54	.57	.59	.62	.64	.66	.69	.70	.72	.74	.75	.76	.77	.78	.78	.79	.79	.79
	500	540	580	621	661	701	741	779	816	852	887	919	951	984	1010	1033	1053	1071	.086	.098	.102	.112	.114	.114
15	.36	.39	.42	.45	.47	.50	.52	.56	.58	.61	.63	.65	.67	.69	.71	.73	.74	.75	.76	.77	.77	.78	.78	.78
	487	526	566	607	647	686	725	764	801	837	871	904	940	968	994	1018	1039	1057	.072	.081	.093	.099	.102	.102
30	.35	.38	.41	.43	.46	.49	.52	.54	.57	.59	.62	.64	.66	.69	.70	.71	.73	.74	.75	.76	.76	.77	.77	.77
	471	510	550	590	629	669	707	745	782	818	852	885	922	950	976	1000	1021	1040	.055	.063	.078	.084	.087	.087
45	.34	.36	.39	.42	.45	.47	.50	.53	.55	.58	.60	.62	.65	.67	.68	.70	.71	.72	.74	.74	.75	.75	.76	.76
	453	491	531	570	609	648	687	725	761	797	831	864	901	929	956	980	1001	1020	.036	.043	.059	.066	.070	.070

*** SIGNIFIES COS 2 = 1.
ADD 1000 TO VALUES PRECEDED BY *

TABLE B-1 SOLAR PARAMETERS
X0 (W/M**2.)

SEP-DEC 60 S COS 2

MSY	SEP					OCT					NOV					DEC								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1400	.32	.35	.38	.40	.43	.46	.48	.51	.54	.56	.58	.60	.63	.65	.67	.68	.70	.71	.72	.73	.74	.74	.74	.74
	432	470	509	548	587	626	664	701	738	773	808	840	877	906	933	957	979	998	.015	.023	.039	.046	.050	.050
15	.30	.33	.36	.39	.41	.44	.47	.49	.52	.54	.56	.59	.61	.63	.65	.66	.68	.69	.70	.71	.72	.72	.73	.73
	406	446	485	523	562	600	638	675	712	747	782	814	852	881	908	932	954	974	.991	.003	.015	.023	.027	.028
30	.28	.31	.34	.37	.39	.42	.45	.47	.50	.52	.54	.57	.59	.61	.63	.65	.66	.67	.68	.69	.70	.71	.71	.71
	393	420	458	496	535	573	610	647	684	719	753	786	824	853	880	905	927	947	.965	.973	.990	.998	.002	.004
45	.26	.29	.32	.34	.37	.40	.42	.45	.47	.50	.52	.54	.57	.59	.61	.62	.64	.65	.66	.67	.68	.69	.69	.69
	355	392	429	467	505	543	580	617	653	689	723	756	793	823	850	875	898	919	.936	.951	.962	.971	.976	.977
1500	.24	.27	.29	.32	.35	.37	.40	.43	.45	.47	.50	.52	.55	.57	.58	.60	.62	.63	.64	.65	.66	.67	.67	.67
	325	361	398	436	473	511	548	585	621	656	693	723	761	791	818	844	867	888	.906	.921	.933	.941	.947	.948
15	.22	.24	.27	.30	.32	.35	.38	.40	.43	.45	.47	.50	.52	.54	.56	.58	.59	.61	.62	.63	.64	.64	.65	.63
	293	329	365	403	440	477	514	550	586	621	656	689	727	757	785	811	834	855	.874	.893	.901	.910	.916	.917
30	.19	.22	.24	.27	.30	.32	.35	.37	.40	.42	.45	.47	.50	.52	.54	.55	.57	.58	.60	.61	.61	.62	.62	.63
	259	294	331	367	404	441	478	514	550	585	620	653	691	721	749	776	800	821	.840	.855	.863	.877	.883	.885
45	.17	.19	.22	.24	.27	.30	.32	.35	.37	.40	.42	.44	.47	.49	.51	.53	.54	.56	.57	.58	.59	.60	.60	.60
	223	258	294	330	367	403	440	476	512	547	582	615	653	684	712	739	763	785	.804	.820	.833	.842	.848	.851
1600	.14	.16	.19	.22	.24	.27	.29	.32	.34	.37	.39	.41	.43	.45	.48	.50	.52	.53	.54	.55	.56	.57	.57	.58
	185	220	256	292	328	365	401	437	473	508	542	576	615	645	674	701	725	747	.767	.783	.794	.806	.812	.815
15	.11	.13	.16	.19	.21	.24	.26	.29	.31	.34	.36	.39	.41	.43	.45	.47	.49	.50	.52	.53	.54	.54	.55	.55
	147	181	217	252	288	324	360	396	432	467	502	536	574	605	634	662	686	709	.723	.743	.758	.768	.775	.777
30	.08	.10	.13	.16	.18	.21	.23	.26	.28	.31	.33	.36	.38	.40	.42	.44	.46	.48	.49	.50	.51	.52	.52	.52
	107	141	176	211	247	283	319	355	390	426	460	494	532	564	594	621	646	669	.689	.703	.719	.729	.736	.739
45	.05	.07	.10	.12	.15	.18	.20	.23	.25	.28	.30	.33	.35	.37	.39	.41	.43	.45	.46	.47	.48	.49	.49	.49
	66	100	134	169	204	240	276	312	348	383	413	452	491	522	552	580	605	628	.648	.663	.679	.689	.696	.699

SEP-DEC 60 S TABLE B-1 SOLAR PARAMETERS COS Z ** SIGNIFIES COS Z = 1.
 X0 (W/M²*2.) ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					DATE					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1700	.02	.04	.07	.09	.12	.14	.17	.20	.22	.25	.27	.29	.32	.34	.36	.38	.40	.42	.43	.41	.45	.46	.46	.47	
	024	057	091	126	161	197	233	268	304	339	374	409	445	480	510	538	563	587	607	621	638	649	655	658	
15	.00	.01	.04	.06	.09	.11	.14	.16	.19	.21	.24	.26	.29	.31	.33	.35	.37	.39	.40	.41	.42	.43	.43	.44	
	000	014	048	083	118	153	189	224	260	295	331	365	400	437	467	495	521	544	565	583	597	607	614	617	
30	.00	.00	.00	.03	.05	.08	.11	.13	.16	.18	.21	.23	.26	.28	.30	.32	.34	.36	.37	.34	.33	.40	.40	.41	
	000	000	004	038	073	109	144	180	216	251	286	321	356	393	423	452	478	502	523	540	550	565	572	575	
45	.00	.00	.00	.00	.02	.05	.07	.10	.12	.15	.17	.20	.23	.25	.27	.29	.31	.33	.34	.33	.33	.37	.37	.38	
	000	000	000	000	029	064	099	135	171	207	242	277	312	348	380	409	435	459	480	493	512	523	530	533	
1800	.00	.00	.00	.00	.00	.01	.04	.07	.09	.12	.14	.17	.20	.22	.24	.26	.28	.30	.31	.32	.33	.34	.34	.35	
	000	000	000	000	000	019	055	090	126	162	198	232	267	303	336	365	392	416	437	455	470	481	487	490	
15	.00	.00	.00	.00	.00	.00	.01	.03	.06	.09	.11	.14	.16	.19	.21	.23	.25	.27	.28	.24	.20	.20	.31	.32	
	000	000	000	000	000	000	010	046	082	118	153	188	223	262	293	322	349	373	395	413	427	438	445	448	
30	.00	.00	.00	.00	.00	.00	.00	.00	.03	.05	.08	.10	.13	.16	.18	.20	.22	.24	.25	.25	.27	.28	.29	.29	
	000	000	000	000	000	000	000	002	038	074	110	145	180	219	250	279	307	331	352	371	385	396	403	405	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.05	.07	.10	.13	.15	.17	.19	.21	.22	.23	.24	.25	.26	.26	
	000	000	000	000	000	000	000	000	000	030	065	102	143	176	208	237	264	289	311	329	343	354	361	363	
1900	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.04	.07	.10	.12	.14	.16	.18	.19	.20	.21	.22	.23	.23	
	000	000	000	000	000	000	000	000	000	000	024	059	101	134	166	196	223	248	269	286	302	313	319	322	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.04	.07	.09	.11	.13	.15	.16	.15	.19	.19	.20	.20	
	000	000	000	000	000	000	000	000	000	000	000	018	050	093	125	155	183	207	229	247	262	272	279	281	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.04	.06	.08	.10	.12	.13	.15	.15	.16	.17	.17	
	000	000	000	000	000	000	000	000	000	000	000	000	020	054	086	116	143	168	190	209	222	233	239	241	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.03	.06	.08	.09	.11	.12	.13	.14	.14	.14	
	000	000	000	000	000	000	000	000	000	000	000	000	000	015	047	077	105	130	151	170	184	194	200	202	

SEP-DEC 60 S TABLE B-1 SOLAR PARAMETERS COS Z *** SIGNIFIES COS Z =1.
 ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					DATE					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
2000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.03	.05	.07	.08	.03	.10	.11	.12	.12	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	010	041	068	093	115	133	117	157	163	164	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.04	.06	.07	.08	.09	.09	.09	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	033	058	079	097	111	121	127	128	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.03	.03	.05	.06	.07	.07	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	024	045	063	077	087	092	093	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.02	.03	.04	.04	.04	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	014	031	045	054	059	060	
2100	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.01	.02	.02	.02	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	001	014	023	026	028	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	

SEP-DEC 60 S TABLE B-1: SOLAR PARAMETERS COS Z ** SIGNIFIES COS Z = 1.
 X0 (W/M**2.) ACC 1000 TO VALUES PRECEDED BY .

MST	JAN							FEB							MAR							APR									
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
0000	.23	.22	.21	.20	.18	.16	.14	.11	.08	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	320	312	297	277	253	226	194	153	114	074	031	000		.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.23	.22	.21	.20	.18	.16	.14	.11	.08	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
321	312	297	277	253	226	194		152	114	073	031	000		.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.23	.22	.21	.20	.18	.16	.14	.11	.08	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
322	313	298	278	254	226	195		153	114	074	031	000		.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.23	.22	.21	.20	.18	.16	.14	.11	.08	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
324	315	300	280	256	228	196		154	116	075	033	000		.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
0100	.23	.23	.21	.20	.18	.16	.14	.11	.08	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
327	318	303	283	259	231	199		157	119	078	035	000		.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.23	.23	.22	.20	.19	.17	.14	.11	.09	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
331	322	306	286	262	234	203		160	122	082	039	000		.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.24	.23	.22	.21	.19	.17	.15	.12	.09	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
336	327	311	291	267	239	207		165	127	086	044	000		.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.24	.24	.22	.21	.19	.17	.15	.12	.09	.07	.04	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
342	333	317	297	272	244	213		170	132	092	049	005		.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
0200	.25	.24	.23	.21	.20	.18	.16	.13	.10	.07	.04	.01	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
349	339	324	303	279	251	219		177	139	098	056	012		.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.25	.25	.23	.22	.20	.18	.16	.13	.10	.08	.05	.01	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
357	347	331	311	286	258	226		184	146	105	063	019		.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.26	.25	.24	.23	.21	.19	.17	.14	.11	.08	.05	.02	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
365	355	339	319	294	266	234		192	154	114	071	027		.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.26	.26	.25	.23	.22	.20	.17	.14	.12	.09	.06	.03	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
374	365	348	328	303	275	243		201	163	123	080	037		.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

... SIGNIFIES COS Z =1.
ADD 1000 TO VALUES PRECEDED BY .

SOLAR PARAMETERS COS Z
XO (W/N**2.)

TABLE B-1

80 S

JAN-APR

MST	JAN										FEB					MAR					APR				
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
0300	.27	.27	.25	.24	.22	.20	.18	.15	.12	.10	.07	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	384	374	358	338	313	285	253	211	173	133	90	0-7	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.28	.27	.26	.25	.23	.21	.19	.16	.13	.10	.07	.04	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	395	385	369	348	324	295	264	222	184	143	101	057	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.29	.28	.27	.25	.24	.22	.20	.17	.14	.11	.08	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	406	396	380	359	335	307	275	233	195	155	113	069	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.30	.29	.28	.26	.25	.23	.20	.17	.15	.12	.09	.06	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	418	408	392	371	347	319	287	245	207	167	125	081	000	000	000	000	000	000	000	000	000	000	000	000	000
0400	.30	.30	.29	.27	.25	.23	.21	.18	.16	.13	.10	.07	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	431	421	404	384	359	331	299	257	219	179	137	094	022	000	000	000	000	000	000	000	000	000	000	000	000
15	.31	.31	.30	.28	.26	.24	.22	.19	.17	.14	.11	.08	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	444	434	417	397	372	344	312	270	233	193	151	107	030	000	000	000	000	000	000	000	000	000	000	000	000
30	.32	.32	.30	.29	.27	.25	.23	.20	.18	.15	.12	.09	.04	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	457	447	431	410	386	357	326	284	246	206	164	121	050	004	000	000	000	000	000	000	000	000	000	000	000
45	.33	.33	.31	.30	.28	.26	.24	.21	.19	.16	.13	.10	.05	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	471	461	444	424	399	371	340	298	260	220	179	135	064	019	000	000	000	000	000	000	000	000	000	000	000
0500	.34	.34	.32	.31	.29	.27	.25	.22	.20	.17	.14	.11	.06	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	485	475	458	438	414	386	354	312	275	235	193	150	079	033	000	000	000	000	000	000	000	000	000	000	000
15	.35	.35	.33	.32	.30	.28	.26	.23	.21	.18	.15	.12	.07	.04	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	499	489	473	452	428	400	369	327	290	250	208	165	094	049	000	000	000	000	000	000	000	000	000	000	000
30	.36	.36	.34	.33	.31	.29	.27	.24	.22	.19	.16	.13	.08	.05	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	514	504	487	467	443	415	384	342	305	265	223	180	109	064	018	000	000	000	000	000	000	000	000	000	000
45	.37	.37	.36	.34	.32	.30	.28	.25	.23	.20	.17	.14	.09	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	528	518	502	482	458	430	399	357	320	280	239	196	125	080	034	000	000	000	000	000	000	000	000	000	000

JAN-APR 80 S TABLE B-1 SOLAR PARAMETERS COS Z XO (W/M**2.) *** SIGNIFIES COS Z =1. ADD 1000 TO VALUES PRECEDED BY *

MST	JAN					FEB					DATE					MAR					APR				
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
0600	.38	.38	.37	.35	.33	.32	.29							.27	.24	.21	.18	.15		.10	.07	.04	.00	.00	.00
	543	533	517	497	473	445	414							373	335	296	254	211		140	095	050	004	000	000
15	.39	.39	.38	.36	.35	.33	.30							.28	.25	.22	.19	.16		.11	.08	.05	.01	.00	.00
	558	548	532	512	488	460	429							388	351	311	270	227		150	111	065	020	000	000
30	.41	.40	.39	.37	.36	.34	.32							.29	.26	.23	.20	.17		.12	.09	.06	.03	.00	.00
	573	563	547	527	503	475	444							403	366	327	286	243		172	127	081	036	000	000
45	.42	.41	.40	.38	.37	.35	.33							.30	.27	.24	.22	.19		.14	.10	.07	.04	.00	.00
	587	578	562	542	518	490	460							419	382	342	301	258		187	142	097	051	006	000
0700	.43	.42	.41	.39	.38	.36	.34							.31	.28	.26	.23	.20		.15	.11	.08	.05	.02	.00
	602	592	576	556	533	505	475							434	397	358	317	274		203	158	112	066	021	000
15	.44	.43	.42	.40	.39	.37	.35							.32	.29	.27	.24	.21		.16	.13	.09	.06	.03	.00
	616	606	591	571	547	520	489							449	412	373	332	289		218	173	127	082	036	000
30	.45	.44	.43	.41	.40	.38	.36							.33	.30	.28	.25	.22		.17	.14	.10	.07	.04	.00
	630	620	605	585	562	534	504							463	427	388	347	304		233	188	142	097	051	006
45	.46	.45	.44	.42	.41	.39	.37							.34	.31	.29	.26	.23		.18	.15	.11	.08	.05	.02
	644	634	619	599	576	549	518							478	441	402	361	319		248	203	157	111	065	020
0800	.46	.46	.45	.43	.42	.40	.38							.35	.32	.30	.27	.24		.19	.16	.12	.09	.06	.03
	657	647	632	612	589	562	532							492	455	416	375	333		262	217	171	125	079	034
15	.47	.47	.46	.44	.43	.41	.39							.36	.33	.31	.28	.25		.20	.17	.13	.10	.07	.04
	669	660	645	625	602	576	545							505	469	430	389	347		276	230	185	139	093	048
30	.48	.48	.46	.45	.44	.42	.40							.37	.34	.32	.29	.26		.21	.18	.14	.11	.08	.04
	682	672	657	638	615	588	558							518	482	443	402	360		289	243	198	152	106	061
45	.49	.48	.47	.46	.44	.43	.41							.38	.35	.33	.30	.27		.22	.19	.15	.12	.09	.05
	693	684	669	650	627	600	571							531	494	456	415	372		302	256	210	164	118	073

JAN-APR 80 S TABLE B-1 SOLAR PARAMETERS COS 2
 X0 (W/M*2.) *** SIGNIFIES COS 2 =1. ADD 1000 TO VALUES PRECEDED BY .

MST	JAN							FEB							MAR							APR						
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30			
0900	.50	.49	.48	.47	.45	.43	.41	.39	.36	.33	.31	.28		.23	.13	.16	.13	.09	.06	.02	.03	.00	.00	.00	.00			
	704	695	680	661	638	612	582	543	506	468	427	385		314	268	222	176	130	084	031	003	000	000	000	000			
15	.51	.50	.49	.48	.46	.44	.42	.39	.37	.34	.31	.28		.23	.20	.17	.14	.10	.07	.03	.03	.00	.00	.00	.00			
	714	705	691	672	649	623	593	554	518	479	438	396		325	280	233	187	141	095	041	003	000	000	000	000			
30	.51	.51	.50	.48	.47	.45	.43	.40	.38	.35	.32	.29		.24	.21	.18	.14	.11	.08	.04	.01	.00	.00	.00	.00			
	724	715	700	682	659	633	604	564	528	490	449	407		336	290	244	198	151	105	051	003	000	000	000	000			
45	.52	.51	.50	.49	.47	.46	.44	.41	.38	.36	.33	.30		.25	.22	.18	.15	.12	.08	.04	.01	.00	.00	.00	.00			
	733	724	710	691	669	643	613	574	538	499	459	416		345	300	254	207	161	115	061	017	000	000	000	000			
1000	.52	.52	.51	.49	.48	.46	.44	.41	.39	.36	.33	.30		.26	.22	.19	.16	.12	.09	.05	.02	.00	.00	.00	.00			
	741	732	718	699	677	651	622	583	547	508	468	425		354	309	262	216	169	123	069	025	000	000	000	000			
15	.53	.52	.51	.50	.49	.47	.45	.42	.40	.37	.34	.31		.26	.23	.20	.16	.13	.10	.06	.02	.00	.00	.00	.00			
	748	739	725	707	685	659	630	591	555	517	476	434		363	317	270	224	177	131	076	032	000	000	000	000			
30	.53	.53	.52	.51	.49	.47	.45	.43	.40	.37	.35	.32		.27	.23	.20	.17	.13	.10	.06	.03	.00	.00	.00	.00			
	754	746	732	714	692	666	637	598	562	524	483	441		370	324	277	231	184	138	083	039	000	000	000	000			
45	.54	.53	.52	.51	.49	.48	.46	.43	.40	.38	.35	.32		.27	.24	.21	.17	.14	.10	.07	.03	.00	.00	.00	.00			
	760	751	737	720	698	672	643	604	569	530	490	447		376	330	284	237	190	143	089	044	001	000	000	000			
1100	.54	.53	.52	.51	.50	.48	.46	.43	.41	.38	.35	.32		.27	.24	.21	.18	.14	.11	.07	.04	.00	.00	.00	.00			
	764	756	742	724	703	677	648	610	574	536	495	453		381	335	289	242	195	148	093	049	004	000	000	000			
15	.54	.54	.53	.52	.50	.48	.46	.44	.41	.39	.36	.33		.28	.25	.21	.18	.14	.11	.07	.01	.01	.00	.00	.00			
	768	760	746	728	707	682	653	614	578	540	500	457		386	340	293	246	199	152	097	052	009	000	000	000			
30	.54	.54	.53	.52	.50	.49	.47	.44	.41	.39	.36	.33		.28	.25	.21	.18	.15	.11	.07	.01	.01	.00	.00	.00			
	770	762	749	731	710	685	656	617	582	544	503	461		389	343	296	249	202	155	100	055	012	000	000	000			
45	.55	.54	.53	.52	.50	.49	.47	.44	.42	.39	.36	.33		.28	.25	.22	.18	.15	.11	.07	.01	.01	.00	.00	.00			
	772	764	751	733	712	687	658	620	584	546	506	463		392	345	298	251	204	157	101	057	013	000	000	000			

JAN-APR 80 S TABLE B-1 SOLAR PARAMETERS COS Z *** SIGNIFIES COS Z = 1.
 Y0 (W/M=2.) ADD 1000 TO VALUES PRECEDED BY *

MST

DATE

	JAN					FEB					MAR					APR									
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1200	.55	.54	.53	.52	.51	.49	.47	.44	.42	.39	.36	.33	.26	.25	.22	.18	.15	.12	.08	.04	.01	.00	.00	.00	.00
	773	765	752	735	713	688	660	621	586	548	507	464	393	347	300	252	205	158	102	057	014	000	000	000	000
15	.55	.54	.53	.52	.51	.49	.47	.44	.42	.39	.36	.33	.28	.25	.22	.18	.15	.12	.07	.04	.01	.00	.00	.00	.00
	772	765	752	735	714	689	660	622	586	548	507	465	393	347	300	252	205	157	102	057	013	000	000	000	000
30	.55	.54	.53	.52	.50	.49	.47	.44	.42	.39	.36	.33	.23	.25	.22	.18	.15	.11	.07	.04	.01	.00	.00	.00	.00
	771	764	751	734	713	688	660	621	586	548	507	464	392	346	299	251	204	156	101	055	012	000	000	000	000
45	.54	.54	.53	.52	.50	.49	.47	.44	.42	.39	.36	.33	.23	.25	.21	.18	.15	.11	.07	.04	.01	.00	.00	.00	.00
	769	762	749	732	711	686	658	620	584	546	505	463	391	344	297	249	201	154	098	053	009	000	000	000	000
1300	.54	.54	.53	.52	.50	.48	.47	.44	.41	.39	.36	.33	.24	.25	.21	.18	.14	.11	.07	.04	.00	.00	.00	.00	.00
	766	759	746	729	708	684	655	617	582	543	503	460	388	341	294	246	198	151	095	049	006	000	000	000	000
15	.54	.53	.52	.51	.50	.48	.46	.44	.41	.39	.36	.33	.28	.24	.21	.18	.14	.11	.07	.03	.00	.00	.00	.00	.00
	762	755	742	725	705	680	652	613	578	540	499	456	384	337	290	242	194	147	091	045	001	000	000	000	000
30	.54	.53	.52	.51	.50	.48	.46	.43	.41	.38	.35	.32	.27	.24	.21	.17	.14	.10	.06	.03	.00	.00	.00	.00	.00
	757	750	737	721	700	675	647	609	573	535	495	452	379	333	285	237	189	141	085	040	000	000	000	000	000
45	.53	.53	.52	.51	.49	.47	.46	.43	.40	.38	.35	.32	.27	.24	.20	.17	.13	.10	.06	.03	.00	.00	.00	.00	.00
	751	744	732	715	694	670	642	603	568	530	489	446	374	327	279	231	183	135	079	034	000	000	000	000	000
1400	.53	.52	.51	.50	.49	.47	.45	.42	.40	.37	.35	.32	.26	.23	.20	.16	.13	.09	.05	.02	.00	.00	.00	.00	.00
	744	737	725	708	688	663	635	597	562	523	482	439	367	320	272	224	176	128	072	025	000	000	000	000	000
15	.52	.52	.51	.50	.48	.47	.45	.42	.39	.37	.34	.31	.26	.25	.19	.16	.12	.09	.05	.01	.00	.00	.00	.00	.00
	736	730	717	701	681	656	628	590	554	516	475	432	359	312	265	216	168	120	064	019	000	000	000	000	000
30	.51	.51	.50	.49	.48	.46	.44	.41	.39	.36	.33	.30	.26	.22	.19	.15	.12	.08	.04	.01	.00	.00	.00	.00	.00
	728	721	709	693	672	648	620	581	546	508	467	424	351	303	256	208	159	112	055	003	000	000	000	000	000
45	.51	.50	.50	.48	.47	.45	.43	.41	.38	.36	.33	.30	.26	.21	.18	.14	.11	.07	.03	.00	.00	.00	.00	.00	.00
	719	712	700	684	663	639	611	572	537	499	458	414	342	294	247	198	150	102	045	000	000	000	000	000	000

JAN-APR 80 S TABLE B-1 SOLAR PARAMETERS COS Z ... SIGNIFIES COS Z = 1.
 X0 (W/H**2.) ADD 1000 TO VALUES PRECEDED BY *

MST	DATE																			
	JAN					FEB					MAR					APR				
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1500	.50	.50	.49	.48	.46	.45	.43	.40	.38	.35	.32	.29	.24	.21	.17	.14	.10	.07	.03	.00
	709	702	690	674	651	629	601	563	527	489	448	404	332	284	236	188	139	92	035	000
15	.49	.49	.48	.47	.46	.44	.42	.39	.37	.34	.31	.28	.23	.20	.16	.13	.09	.06	.02	.00
	698	692	680	663	643	619	591	552	517	478	437	394	321	273	225	177	128	80	024	000
30	.49	.48	.47	.46	.45	.43	.41	.38	.36	.33	.30	.27	.22	.19	.15	.12	.09	.05	.01	.00
	687	680	668	652	632	607	579	541	505	467	425	382	303	262	214	165	117	69	012	000
45	.48	.47	.46	.45	.44	.42	.40	.38	.35	.32	.30	.27	.21	.18	.15	.11	.08	.04	.00	.00
	675	669	657	640	620	596	567	529	493	455	413	370	297	249	201	153	104	56	000	000
1600	.47	.46	.46	.44	.43	.41	.39	.37	.34	.32	.29	.26	.20	.17	.14	.10	.07	.03	.00	.00
	662	656	644	628	608	583	555	516	481	442	401	357	284	236	188	140	91	043	000	000
15	.46	.45	.45	.44	.42	.40	.38	.36	.33	.31	.28	.25	.19	.16	.13	.09	.06	.02	.00	.00
	650	643	631	615	595	570	542	503	467	429	387	344	270	223	175	126	077	029	000	000
30	.45	.45	.44	.43	.41	.39	.38	.35	.32	.30	.27	.24	.18	.15	.12	.08	.05	.01	.00	.00
	636	630	618	602	581	557	528	490	454	415	374	330	256	209	161	112	063	015	000	000
45	.44	.44	.43	.42	.40	.38	.37	.34	.31	.29	.26	.23	.17	.14	.11	.07	.04	.00	.00	.00
	622	616	604	588	567	543	515	476	440	401	359	316	242	194	146	097	049	001	000	000
1700	.43	.43	.42	.41	.39	.37	.36	.33	.30	.28	.25	.22	.16	.13	.10	.06	.03	.00	.00	.00
	608	602	590	574	553	529	500	461	425	386	345	301	227	180	131	083	034	000	000	000
15	.42	.42	.41	.40	.38	.36	.34	.32	.29	.27	.24	.21	.15	.12	.08	.05	.01	.00	.00	.00
	594	588	576	559	539	514	486	447	410	371	330	286	212	164	116	067	019	000	000	000
30	.41	.41	.40	.39	.37	.35	.33	.31	.28	.25	.23	.19	.14	.11	.07	.04	.00	.00	.00	.00
	579	573	561	545	524	499	471	432	395	356	315	271	197	149	101	052	004	000	000	000
45	.40	.39	.39	.38	.36	.34	.32	.30	.27	.24	.21	.18	.13	.10	.06	.03	.00	.00	.00	.00
	565	558	546	530	509	484	456	416	380	341	299	255	181	134	085	037	000	000	000	000

JAN-APR 80 S TABLE B-1 SOLAR PARAMETERS COS Z *** SIGNIFIES COS Z = 1.
 X0 (W/M**2.) ADD 1000 TO VALUES PRECEDED BY *

MST	DATE												APR											
	JAN						FEB						MAR						APR					
	1	5	10	15	20	25	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30
1800	.39	.38	.38	.36	.35	.33	.31	.29	.26	.23	.20	.17	.12	.09	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00
550	543	531	515	494	469	440		401	365	325	284	240	166	118	069	021	000	000	000	000	000	000	000	000
15	.38	.37	.37	.35	.34	.32	.30	.27	.25	.22	.19	.16	.11	.07	.04	.00	.00	.00	.00	.00	.00	.00	.00	.00
535	529	516	500	479	454	425		386	349	310	268	224	150	102	054	005	000	000	000	000	000	000	000	000
30	.37	.36	.35	.34	.33	.31	.29	.26	.24	.21	.18	.15	.10	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00
520	514	502	485	461	439	410		370	334	294	252	208	134	086	038	000	000	000	000	000	000	000	000	000
45	.36	.35	.34	.33	.32	.30	.28	.25	.23	.20	.17	.14	.09	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00
506	499	487	470	449	424	395		355	318	279	237	193	119	071	022	000	000	000	000	000	000	000	000	000
1900	.35	.34	.33	.32	.31	.29	.27	.24	.22	.19	.16	.13	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00
491	485	472	455	434	409	380		340	303	264	222	177	103	055	007	000	000	000	000	000	000	000	000	000
15	.34	.33	.32	.31	.30	.28	.26	.23	.21	.18	.15	.12	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
477	470	458	441	420	394	365		325	288	249	206	162	088	040	000	000	000	000	000	000	000	000	000	000
30	.33	.32	.31	.30	.29	.27	.25	.22	.20	.17	.14	.11	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
463	456	444	427	405	380	350		310	273	234	191	147	073	025	000	000	000	000	000	000	000	000	000	000
45	.32	.31	.30	.29	.28	.26	.24	.21	.18	.16	.13	.10	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
450	443	430	413	391	366	336		296	259	219	177	132	059	011	000	000	000	000	000	000	000	000	000	000
2000	.31	.30	.29	.28	.27	.25	.23	.20	.17	.15	.12	.09	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
436	429	417	399	378	352	322		282	245	205	163	118	044	000	000	000	000	000	000	000	000	000	000	000
15	.30	.29	.29	.27	.26	.24	.22	.19	.17	.14	.11	.08	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
424	417	404	386	365	339	309		269	231	191	149	104	030	000	000	000	000	000	000	000	000	000	000	000
30	.29	.29	.28	.26	.25	.23	.21	.18	.16	.13	.10	.07	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
412	404	391	374	352	326	296		256	218	178	136	091	017	000	000	000	000	000	000	000	000	000	000	000
45	.28	.28	.27	.26	.24	.22	.20	.17	.15	.12	.09	.06	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
400	393	380	362	340	314	284		243	206	166	123	079	004	000	000	000	000	000	000	000	000	000	000	000

... SIGNIFIES COS Z -1.
ADD 1000 TO VALUES PRECEDED BY .

SOLAR PARAMETERS COS Z
XO (W/M+2.)

TABLE B-1

JAN-APR 80 S

MST	JAN							FEB							MAR							APR									
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
2100	.28	.27	.26	.25	.23	.21	.19	.16	.14	.11	.08	.05		.03	.03	.03	.00	.00	.00	.00	.03	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00
	389	382	368	351	328	302	272	231	194	154	111	067		003	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
15	.27	.26	.25	.24	.23	.21	.19	.16	.13	.10	.07	.04		.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	379	371	358	340	318	291	261	220	183	142	109	055		000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.26	.26	.25	.23	.22	.20	.18	.15	.12	.09	.06	.03		.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	369	362	348	330	307	281	251	210	172	132	089	045		000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.26	.25	.24	.23	.21	.19	.17	.14	.12	.09	.06	.03		.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	360	353	339	321	298	272	241	200	162	122	079	025		000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
2200	.25	.24	.23	.22	.21	.19	.17	.14	.11	.08	.05	.02		.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	352	345	331	312	290	263	232	191	153	113	070	026		000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.24	.24	.23	.22	.20	.18	.16	.13	.10	.08	.04	.01		.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	345	337	323	305	282	255	224	183	145	105	062	017		000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.24	.23	.22	.21	.20	.18	.15	.13	.10	.07	.04	.01		.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	339	331	317	298	275	248	217	176	138	097	055	010		000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.24	.23	.22	.21	.19	.17	.15	.12	.09	.07	.04	.00		.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	333	325	311	292	269	242	211	170	132	091	048	004		000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
2300	.23	.23	.22	.20	.19	.17	.15	.12	.09	.06	.03	.00		.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	329	321	306	287	264	237	206	164	126	086	043	000		000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.23	.22	.21	.20	.18	.17	.14	.11	.09	.06	.03	.00		.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	325	317	302	283	260	233	202	160	122	081	038	000		000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.23	.22	.21	.20	.18	.16	.14	.11	.08	.06	.03	.00		.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	323	314	300	280	257	229	198	156	118	078	035	000		000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.23	.22	.21	.20	.18	.16	.14	.11	.08	.05	.02	.00		.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	321	312	298	278	255	227	196	154	116	075	032	000		000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000

JAN-APR 80 S TABLE B-1 SOLAR PARAMETERS COS 2 *** SIGNIFIES COS 2 = 1.
 X0 (W/M**2.) ADD 1000 TO VALUES PRECEDED BY *

MST	DATE											
	MAY				JUN				JUL			
	5	10	15	20	25	30	5	10	15	20	25	30
1300	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000

MAY-AUG 80 S TABLE B-1 SOLAR PARAMETERS COS Z ** SIGNIFIES COS Z *1.
 XO (W/M*+2.) ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					DATE					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
0600	.00	.00	.00	.00	.02	.05	.08	.12	.15	.18	.21	.24	.27	.30	.32	.34	.36	.37	.38	.39	.39	.39	.39	.39	
	000	000	000	000	020	068	115	162	206	253	295	336	381	416	447	475	499	519	535	543	553	556	554	548	
15	.00	.00	.00	.00	.03	.06	.10	.13	.15	.19	.22	.25	.28	.31	.33	.35	.37	.38	.39	.40	.40	.40	.40	.40	
	000	000	000	000	036	083	131	178	223	268	311	351	396	431	462	490	514	534	549	561	571	571	569	562	
30	.00	.00	.00	.00	.04	.07	.11	.14	.17	.21	.24	.26	.30	.32	.34	.36	.38	.39	.40	.41	.41	.41	.41	.41	
	000	000	000	004	051	099	146	193	239	283	326	365	411	446	477	505	529	548	564	573	583	585	583	577	
45	.00	.00	.00	.01	.05	.08	.12	.15	.18	.22	.25	.27	.31	.33	.35	.37	.39	.40	.41	.42	.42	.42	.42	.42	
	000	000	000	019	066	114	161	208	254	298	341	381	426	461	492	519	543	563	579	590	597	600	598	592	
0700	.00	.00	.00	.03	.06	.09	.13	.16	.20	.23	.26	.29	.32	.34	.36	.38	.40	.41	.42	.43	.43	.43	.43	.43	
	000	000	000	034	081	129	176	223	269	313	356	396	441	475	506	534	557	577	593	601	612	614	612	606	
15	.00	.00	.00	.04	.07	.11	.14	.17	.21	.24	.27	.30	.33	.35	.37	.39	.41	.42	.43	.44	.44	.44	.44	.44	
	000	000	001	048	096	144	191	238	283	328	370	410	455	484	520	548	572	591	607	613	620	623	626	620	
30	.00	.00	.01	.05	.08	.12	.15	.18	.22	.25	.28	.31	.34	.36	.38	.40	.42	.43	.44	.45	.45	.45	.45	.45	
	000	000	016	063	110	158	205	252	297	342	384	424	469	503	534	562	585	605	621	632	637	642	640	634	
45	.00	.00	.02	.06	.09	.13	.16	.19	.23	.26	.29	.32	.35	.37	.39	.41	.43	.44	.45	.46	.46	.46	.46	.46	
	000	000	030	077	124	172	215	266	311	355	399	438	482	516	547	575	599	618	634	645	652	655	654	648	
0800	.00	.00	.03	.07	.10	.14	.17	.20	.24	.27	.30	.32	.36	.38	.40	.42	.44	.45	.46	.47	.47	.47	.47	.47	
	000	000	013	090	137	185	232	279	324	368	411	451	499	529	560	588	611	631	647	653	659	668	667	661	
15	.00	.01	.04	.08	.11	.15	.18	.21	.24	.28	.31	.33	.36	.38	.41	.43	.44	.46	.47	.48	.48	.48	.48	.48	
	000	010	056	103	150	198	245	291	337	381	423	463	509	542	572	600	624	643	659	671	678	681	679	673	
30	.00	.02	.05	.09	.12	.15	.19	.22	.25	.28	.31	.34	.37	.40	.42	.44	.45	.47	.48	.49	.49	.49	.49	.49	
	000	022	068	115	162	210	257	304	349	393	435	475	519	553	584	612	635	655	671	682	689	693	691	686	
45	.00	.03	.06	.09	.13	.16	.20	.23	.26	.29	.32	.35	.38	.40	.43	.44	.46	.47	.48	.49	.50	.50	.50	.49	
	000	034	080	127	174	221	269	315	360	404	446	486	531	563	595	623	646	666	682	691	701	704	703	697	

SEP-DEC 80 S TABLE 8-1 SOLAR PARAMETERS COS 2 ... SIGNIFIES COS 7 51.
 XC (M/M**2.) COS 1000 TO VALUES PRECEDED BY .

NST	SEP					OCT					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30		
0900	.00	.03	.07	.10	.14	.17	.20	.24	.27	.30	.33	.36	.39	.41	.43	.45	.47	.48		
	000	045	091	138	185	232	279	326	371	415	457	496	541	575	606	633	657	676		
15	.01	.04	.08	.11	.14	.18	.21	.24	.26	.31	.34	.36	.40	.42	.44	.46	.47	.49		
	010	055	101	148	195	242	289	336	381	424	466	506	551	584	615	642	666	686		
30	.01	.05	.08	.12	.15	.18	.22	.25	.28	.31	.34	.37	.40	.42	.45	.46	.48	.49		
	020	064	111	157	204	252	299	345	390	433	475	515	551	583	621	651	675	695		
45	.02	.05	.09	.12	.16	.19	.22	.26	.29	.32	.35	.38	.41	.43	.45	.47	.49	.50		
	028	073	119	166	213	260	307	353	398	442	483	523	567	601	632	659	683	703		
1000	.03	.06	.09	.13	.16	.20	.23	.26	.29	.33	.35	.38	.41	.44	.46	.48	.49	.50		
	036	081	127	174	221	268	314	360	405	449	491	530	574	608	639	666	690	710		
15	.03	.07	.10	.13	.17	.20	.23	.27	.30	.33	.36	.39	.42	.44	.46	.48	.50	.51		
	043	088	134	181	227	274	321	367	412	455	497	536	581	615	645	673	697	717		
30	.04	.07	.10	.14	.17	.21	.24	.27	.30	.33	.36	.39	.42	.44	.47	.48	.50	.51		
	050	094	140	187	233	280	327	373	417	461	502	542	586	620	651	678	702	722		
45	.04	.07	.11	.14	.18	.21	.24	.27	.31	.34	.37	.39	.42	.45	.47	.49	.50	.52		
	055	099	145	192	238	285	331	377	422	465	507	546	590	624	655	683	707	727		
1100	.04	.08	.11	.14	.18	.21	.24	.28	.31	.34	.37	.40	.43	.45	.47	.49	.51	.52		
	059	104	149	196	242	289	335	381	425	469	510	550	594	628	658	686	710	730		
15	.05	.08	.11	.15	.18	.21	.25	.28	.31	.34	.37	.40	.43	.45	.47	.49	.51	.52		
	062	107	152	199	245	292	338	383	428	471	513	552	595	630	661	689	713	733		
30	.05	.08	.11	.15	.18	.22	.25	.28	.31	.34	.37	.40	.43	.45	.47	.49	.51	.52		
	065	109	155	201	247	293	340	385	429	473	514	553	598	631	662	690	714	735		
45	.05	.08	.12	.15	.18	.22	.25	.28	.31	.34	.37	.40	.43	.45	.47	.49	.51	.52		
	066	111	156	202	248	294	340	386	430	473	514	554	596	632	663	691	715	736		

SEP-DEC 30 S TABLE B-1 SOLAR PARAMETERS COS Z
 ** SIGNIFIES COS Z =1.
 ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					DATE					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1200	.05	.08	.12	.15	.18	.22	.25	.28	.31	.34	.37	.40	.43	.45	.47	.49	.51	.52	.53	.51	.55	.55	.55	.55	
	067	111	156	202	248	294	340	385	430	472	514	553	597	631	662	690	715	735	752	765	774	779	780	773	
15	.05	.08	.11	.15	.18	.21	.25	.28	.31	.34	.37	.40	.43	.45	.47	.49	.51	.52	.53	.51	.55	.55	.55	.55	
	066	110	155	201	247	293	339	384	428	471	512	552	596	630	661	689	713	734	751	765	773	778	779	775	
30	.05	.08	.11	.15	.18	.21	.25	.28	.31	.34	.37	.40	.43	.45	.47	.49	.51	.52	.53	.51	.55	.55	.55	.55	
	065	108	153	199	245	291	336	381	426	468	510	549	593	627	658	686	711	732	749	763	772	777	778	774	
45	.05	.08	.11	.14	.18	.21	.24	.28	.31	.34	.37	.39	.42	.45	.47	.49	.50	.52	.53	.51	.54	.55	.55	.55	
	062	106	150	196	242	287	333	378	422	465	506	545	590	624	655	683	708	729	746	760	769	774	775	772	
1300	.04	.08	.11	.14	.17	.21	.24	.27	.30	.33	.36	.39	.42	.44	.47	.48	.50	.52	.53	.51	.54	.55	.55	.54	
	058	102	147	192	238	283	329	374	418	460	502	541	585	619	651	679	704	725	742	755	765	771	772	769	
15	.04	.07	.11	.14	.17	.20	.24	.27	.30	.33	.36	.39	.42	.44	.46	.48	.50	.51	.52	.53	.54	.54	.54	.54	
	054	097	142	187	232	278	323	368	412	455	496	535	590	614	645	674	699	720	738	751	761	766	763	765	
30	.04	.07	.10	.13	.17	.20	.23	.26	.29	.32	.35	.38	.41	.43	.46	.48	.49	.51	.52	.53	.53	.54	.54	.54	
	048	092	136	181	226	272	317	362	406	448	490	529	573	608	639	667	693	714	732	745	755	761	762	759	
45	.03	.06	.10	.13	.16	.19	.23	.26	.29	.32	.35	.38	.41	.43	.45	.47	.49	.50	.51	.52	.53	.53	.53	.53	
	042	085	129	174	220	265	310	355	398	441	482	522	565	600	632	660	686	707	725	739	749	755	756	753	
1400	.03	.06	.09	.12	.16	.19	.22	.25	.28	.31	.34	.37	.40	.42	.45	.47	.48	.50	.51	.52	.53	.53	.53	.53	
	035	078	122	167	212	257	302	347	390	433	474	513	558	592	624	653	678	700	718	732	742	748	749	747	
15	.02	.05	.08	.12	.15	.18	.21	.25	.28	.31	.34	.36	.38	.42	.44	.46	.48	.49	.50	.51	.52	.52	.52	.52	
	027	070	114	158	203	248	293	338	381	424	465	504	549	583	615	644	669	691	709	721	731	740	742	739	
30	.01	.05	.08	.11	.14	.17	.21	.24	.27	.30	.33	.36	.39	.41	.43	.45	.47	.48	.50	.51	.51	.52	.52	.52	
	018	061	104	149	194	239	283	328	371	414	455	495	539	574	606	634	660	682	700	715	725	731	733	730	
45	.01	.04	.07	.10	.13	.17	.20	.23	.26	.29	.32	.35	.38	.40	.43	.45	.46	.48	.49	.50	.51	.51	.51	.51	
	008	051	094	139	183	228	275	317	361	403	445	484	529	563	595	624	650	672	690	705	715	722	724	721	

SEP-DEC 80 S TABLE 8-1 SOLAR PARAMETERS COS Z ... SIGNIFIES COS Z = 1.
 XC (W/M**2.) ADD 1000 TO VALUES PRECEDED BY

MST	SEP					OCT					NOV					DEC							
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30					
1800	.00	.00	.00	.00	.00	.03	.07	.10	.13	.16	.19	.22	.25	.28	.30	.32	.34	.35	.37	.38	.39	.39	.39
	000	000	000	000	000	046	090	134	178	221	262	302	342	382	417	447	474	497	517	533	548	551	554
15	.00	.00	.00	.00	.00	.02	.06	.09	.12	.15	.18	.21	.24	.26	.29	.31	.33	.34	.36	.37	.38	.38	.38
	000	000	000	000	000	031	075	119	162	205	247	287	333	369	402	432	459	483	502	518	532	537	539
30	.00	.00	.00	.00	.00	.01	.04	.08	.11	.14	.17	.20	.23	.25	.28	.30	.32	.33	.35	.36	.36	.37	.37
	000	000	000	000	000	016	060	104	147	190	232	272	318	354	387	417	444	468	488	503	515	522	525
45	.00	.00	.00	.00	.00	.00	.03	.06	.10	.13	.16	.19	.22	.24	.27	.29	.31	.32	.34	.35	.35	.36	.36
	000	000	000	000	000	000	044	088	132	175	217	257	303	339	372	403	430	453	473	489	500	508	510
1900	.00	.00	.00	.00	.00	.00	.02	.05	.09	.12	.15	.17	.21	.23	.26	.28	.30	.31	.33	.34	.34	.35	.35
	000	000	000	000	000	000	030	074	117	160	202	242	285	324	358	388	415	439	459	475	488	493	496
15	.00	.00	.00	.00	.00	.00	.01	.04	.07	.11	.14	.16	.20	.22	.25	.27	.29	.30	.32	.33	.33	.34	.34
	000	000	000	000	000	000	015	059	103	146	187	228	274	310	342	374	401	425	445	461	472	479	482
30	.00	.00	.00	.00	.00	.00	.00	.03	.06	.10	.13	.15	.19	.21	.24	.26	.28	.29	.31	.32	.32	.33	.33
	000	000	000	000	000	000	001	045	089	132	173	214	260	296	330	360	388	411	431	447	458	465	468
45	.00	.00	.00	.00	.00	.00	.00	.02	.05	.09	.12	.14	.18	.20	.23	.25	.27	.28	.30	.31	.32	.32	.32
	000	000	000	000	000	000	000	031	075	118	160	200	247	283	316	347	374	398	418	434	445	452	454
2000	.00	.00	.00	.00	.00	.00	.00	.01	.05	.08	.11	.14	.17	.19	.22	.24	.26	.27	.29	.30	.31	.31	.31
	000	000	000	000	000	000	000	018	062	105	147	187	234	270	304	334	362	385	405	421	432	439	441
15	.00	.00	.00	.00	.00	.00	.00	.00	.04	.07	.10	.12	.16	.18	.21	.23	.25	.27	.28	.29	.30	.30	.30
	000	000	000	000	000	000	000	005	049	092	134	175	221	258	291	322	349	373	393	403	410	427	429
30	.00	.00	.00	.00	.00	.00	.00	.00	.03	.06	.09	.12	.15	.18	.20	.22	.24	.26	.27	.28	.29	.29	.29
	000	000	000	000	000	000	000	000	037	080	122	163	210	246	280	310	338	361	381	397	408	415	417
45	.00	.00	.00	.00	.00	.00	.00	.00	.02	.05	.08	.11	.14	.17	.19	.21	.23	.25	.26	.27	.28	.29	.29
	000	000	000	000	000	000	000	000	026	069	111	152	199	235	269	299	327	350	370	385	397	403	405

SEP-DEC 80 S TABLE R-1 SOLAR PARAMETERS CCS Z X0 (W/M**2.) *** SIGNIFIES COS Z =1. ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					DATE					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
2100	.00	.00	.00	.00	.00	.00	.00	.00	.01	.04	.07	.10	.14	.16	.18	.21	.23	.24	.26	.27	.27	.28	.28	.28	
	000	000	000	000	000	000	000	000	015	058	101	142	188	225	258	289	315	340	360	375	385	393	395	392	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.04	.07	.10	.13	.15	.18	.20	.22	.23	.25	.26	.27	.27	.27	.27	
	000	000	000	000	000	000	000	000	005	049	091	132	179	215	249	279	307	330	350	365	37	383	385	382	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.06	.09	.12	.15	.17	.19	.21	.23	.24	.25	.25	.26	.27	.26	
	000	000	000	000	000	000	000	000	040	082	123		170	206	240	271	293	321	341	355	367	373	375	372	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.05	.08	.12	.14	.17	.19	.21	.22	.24	.25	.25	.26	.26	.26	
	000	000	000	000	000	000	000	000	032	074	115		162	198	232	263	290	313	333	348	359	365	367	363	
2200	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.05	.08	.11	.14	.16	.18	.20	.22	.23	.24	.25	.25	.25	.25	
	000	000	000	000	000	000	000	000	024	067	108		155	191	225	255	283	306	325	341	351	357	359	355	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.04	.07	.11	.13	.16	.18	.20	.21	.23	.24	.24	.25	.25	.25	
	000	000	000	000	000	000	000	000	018	060	102		148	185	218	249	276	300	319	334	345	351	352	348	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.04	.07	.10	.13	.15	.17	.19	.21	.22	.23	.24	.24	.24	.24	
	000	000	000	000	000	000	000	000	012	055	096		143	180	213	244	271	294	313	328	339	345	346	342	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.04	.07	.10	.13	.15	.17	.19	.21	.22	.23	.24	.24	.24	.24	
	000	000	000	000	000	000	000	000	008	051	092		139	175	209	239	266	289	309	323	334	340	340	337	
2300	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.06		.10	.12	.15	.17	.19	.20	.22	.23	.23	.24	.24	.24	
	000	000	000	000	000	000	000	000	005	047	089		135	172	205	236	263	286	305	320	330	335	336	332	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.06		.10	.12	.15	.17	.19	.20	.21	.22	.23	.24	.24	.23	
	000	000	000	000	000	000	000	000	002	045	086		133	169	203	233	260	283	302	317	327	332	333	329	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.06		.10	.12	.14	.17	.18	.20	.21	.22	.23	.23	.23	.23	
	000	000	000	000	000	000	000	000	031	043	085		132	168	201	232	258	281	300	315	325	330	330	326	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.06		.10	.12	.14	.17	.18	.20	.21	.22	.23	.23	.23	.23	
	000	000	000	000	000	000	000	000	043	084			131	167	201	231	258	281	299	314	323	329	329	325	

SEP-DEC 80 S TABLE B-1 SOLAR PARAMETERS COS Z *
 ** SIGNIFIES COS Z =1.
 *** ADD 1000 TO VALUES PRECEDED BY *

		COS Z																			
LOW	MID	HIGH	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95
CLR	CLR	CLR	.45	.49	.54	.58	.61	.65	.68	.71	.73	.75	.77	.78	.79	.79	.80	.90	.80	.80	.80
	SCT	SCT	.43	.48	.52	.56	.60	.64	.67	.70	.72	.74	.76	.77	.78	.79	.79	.79	.79	.79	.79
	BKN	BKN	.39	.43	.48	.52	.56	.60	.63	.66	.69	.71	.73	.74	.75	.76	.76	.76	.76	.76	.76
	OVC	OVC	.38	.42	.46	.49	.53	.56	.59	.62	.65	.67	.69	.71	.72	.73	.74	.74	.74	.74	.74
CLR	SCT	CLR	.38	.42	.46	.50	.54	.57	.60	.63	.66	.68	.70	.71	.73	.74	.74	.75	.75	.75	.75
	SCT	SCT	.37	.41	.45	.49	.53	.56	.60	.63	.65	.67	.69	.71	.72	.73	.74	.74	.74	.74	.74
	BKN	BKN	.34	.38	.42	.46	.50	.53	.57	.60	.62	.65	.67	.68	.70	.71	.71	.71	.71	.71	.71
	OVC	OVC	.33	.37	.40	.44	.47	.50	.53	.56	.59	.61	.63	.65	.67	.68	.69	.69	.70	.70	.70
C'R	BKN	CLR	.30	.34	.37	.40	.43	.46	.49	.52	.54	.56	.57	.59	.60	.61	.61	.61	.61	.61	.61
	SCT	SCT	.29	.33	.36	.39	.43	.46	.48	.51	.53	.55	.57	.59	.60	.60	.61	.61	.61	.61	.61
	BKN	BKN	.27	.30	.34	.37	.40	.43	.46	.49	.51	.53	.55	.57	.58	.58	.59	.59	.59	.59	.59
	OVC	OVC	.27	.30	.33	.36	.39	.41	.44	.46	.49	.51	.53	.54	.56	.56	.57	.58	.58	.58	.58
CLR	OVC	CLR	.18	.20	.21	.23	.24	.26	.27	.28	.29	.30	.31	.32	.33	.33	.34	.34	.34	.34	.34
	SCT	SCT	.18	.19	.21	.22	.24	.25	.27	.28	.29	.30	.31	.32	.33	.33	.34	.34	.34	.34	.34
	BKN	BKN	.16	.18	.20	.21	.23	.25	.26	.27	.29	.30	.31	.31	.32	.32	.33	.33	.33	.33	.33
	OVC	OVC	.16	.18	.19	.21	.22	.24	.25	.26	.27	.29	.30	.30	.31	.32	.32	.32	.32	.32	.32
SCT	CLR	CLR	.37	.41	.45	.49	.52	.56	.59	.62	.65	.67	.69	.71	.72	.73	.74	.75	.76	.76	.76
	SCT	SCT	.36	.40	.44	.48	.51	.55	.58	.61	.64	.67	.69	.70	.72	.73	.74	.75	.75	.75	.75
	BKN	BKN	.32	.36	.41	.45	.48	.52	.55	.59	.61	.64	.66	.68	.69	.70	.71	.72	.72	.72	.72
	OVC	OVC	.32	.35	.39	.42	.46	.49	.52	.55	.58	.60	.63	.65	.66	.68	.69	.70	.70	.70	.70
SCT	SCT	CLR	.32	.36	.39	.43	.47	.50	.53	.56	.59	.61	.63	.65	.67	.68	.69	.70	.71	.71	.72
	SCT	SCT	.31	.35	.38	.42	.46	.49	.52	.56	.58	.61	.63	.65	.67	.68	.69	.70	.70	.71	.71
	BKN	BKN	.28	.32	.36	.40	.43	.47	.50	.53	.56	.58	.61	.63	.64	.66	.67	.67	.68	.68	.68
	OVC	OVC	.28	.31	.35	.38	.41	.44	.47	.50	.53	.55	.58	.60	.62	.63	.64	.65	.66	.67	.67
SCT	BKN	CLR	.26	.29	.32	.35	.38	.41	.44	.46	.49	.51	.53	.54	.56	.57	.58	.58	.59	.59	.59
	SCT	SCT	.25	.28	.31	.34	.38	.41	.43	.46	.48	.51	.52	.54	.56	.57	.57	.58	.58	.58	.58
	BKN	BKN	.23	.26	.29	.33	.36	.39	.42	.44	.47	.49	.51	.52	.54	.55	.56	.56	.56	.56	.56
	OVC	OVC	.23	.26	.28	.31	.34	.37	.40	.42	.44	.47	.49	.50	.52	.53	.54	.55	.55	.55	.55
SCT	OVC	CLR	.16	.17	.19	.21	.22	.23	.25	.26	.27	.28	.29	.30	.31	.32	.32	.33	.33	.33	.33
	SCT	SCT	.15	.17	.19	.20	.22	.23	.25	.26	.27	.28	.29	.30	.31	.32	.32	.33	.33	.33	.33
	BKN	BKN	.15	.16	.18	.19	.21	.23	.24	.25	.27	.28	.29	.30	.30	.31	.31	.32	.32	.32	.32
	OVC	OVC	.14	.16	.17	.19	.20	.22	.23	.24	.26	.27	.28	.29	.30	.30	.31	.31	.31	.32	.32

STATE 1-1-1 THIN HIGH CLOUD LOW ALBEDO VIS > 11 KM TABLE 8-2 SOLAR TRANSMISSION (T)

		COS Z																			
LOW	MID	HIGH	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95
BKN	CLR	CLR	.30	.33	.36	.39	.42	.45	.48	.50	.52	.54	.55	.57	.58	.59	.60	.60	.61	.61	.61
	SCT	SCT	.29	.32	.35	.39	.42	.44	.47	.49	.52	.54	.55	.57	.58	.59	.60	.60	.61	.61	.61
	BKN	BKN	.26	.30	.33	.36	.39	.42	.45	.47	.50	.52	.53	.55	.56	.57	.58	.58	.58	.58	.58
	OVC	OVC	.26	.29	.32	.35	.37	.40	.43	.45	.47	.49	.51	.52	.54	.55	.56	.57	.57	.57	.57
BKN	SCT	CLR	.26	.29	.32	.35	.38	.41	.43	.46	.48	.50	.51	.53	.54	.55	.56	.57	.58	.58	.58
	SCT	SCT	.25	.29	.32	.35	.38	.40	.43	.45	.47	.49	.51	.53	.54	.55	.56	.57	.57	.58	.58
	BKN	BKN	.24	.27	.30	.33	.36	.38	.41	.44	.46	.48	.50	.51	.52	.53	.54	.55	.55	.55	.55
	OVC	OVC	.23	.26	.29	.31	.34	.37	.39	.41	.43	.46	.47	.49	.50	.52	.53	.54	.54	.54	.55
BKN	BKN	CLR	.22	.24	.27	.29	.32	.34	.37	.39	.41	.42	.44	.45	.46	.47	.48	.48	.49	.49	.49
	SCT	SCT	.21	.24	.26	.29	.31	.34	.36	.38	.40	.42	.44	.45	.46	.47	.48	.48	.49	.49	.49
	BKN	BKN	.19	.22	.25	.27	.30	.32	.35	.37	.39	.41	.42	.44	.45	.46	.46	.47	.47	.47	.47
	OVC	OVC	.19	.22	.24	.26	.29	.31	.33	.35	.37	.39	.41	.42	.43	.44	.45	.46	.46	.46	.46
BKN	OVC	CLR	.14	.15	.17	.18	.19	.20	.22	.23	.24	.25	.26	.27	.27	.28	.28	.29	.29	.29	.29
	SCT	SCT	.13	.15	.16	.18	.19	.20	.22	.23	.24	.25	.26	.26	.27	.28	.28	.28	.29	.29	.29
	BKN	BKN	.13	.14	.16	.17	.18	.20	.21	.22	.23	.24	.25	.26	.27	.27	.28	.28	.28	.28	.28
	OVC	OVC	.13	.14	.15	.16	.18	.19	.20	.21	.22	.23	.24	.25	.26	.26	.27	.27	.28	.28	.28
OVC	CLR	CLR	.13	.15	.17	.18	.20	.22	.23	.24	.26	.27	.28	.29	.30	.31	.32	.32	.33	.33	.34
	SCT	SCT	.13	.14	.16	.18	.20	.21	.23	.24	.26	.27	.28	.29	.30	.31	.32	.32	.33	.33	.33
	BKN	BKN	.12	.14	.15	.17	.19	.21	.22	.24	.25	.26	.27	.29	.29	.30	.31	.31	.32	.32	.32
	OVC	OVC	.12	.13	.15	.17	.18	.20	.21	.23	.24	.25	.27	.28	.29	.29	.30	.31	.31	.32	.32
OVC	SCT	CLR	.12	.14	.15	.17	.19	.20	.22	.23	.24	.26	.27	.28	.29	.30	.31	.31	.32	.32	.33
	SCT	SCT	.12	.13	.15	.17	.18	.20	.21	.23	.24	.26	.27	.28	.29	.30	.30	.31	.32	.32	.32
	BKN	BKN	.11	.12	.14	.16	.18	.19	.21	.22	.24	.25	.26	.27	.28	.29	.30	.30	.31	.31	.31
	OVC	OVC	.11	.12	.14	.15	.17	.18	.20	.21	.23	.24	.25	.26	.27	.28	.29	.30	.30	.31	.31
OVC	BKN	CLR	.10	.12	.13	.15	.16	.18	.19	.20	.22	.23	.24	.25	.26	.27	.27	.28	.28	.29	.29
	SCT	SCT	.10	.12	.13	.15	.16	.18	.19	.20	.22	.23	.24	.25	.26	.26	.27	.28	.28	.29	.29
	BKN	BKN	.09	.11	.12	.14	.16	.17	.18	.20	.21	.22	.23	.24	.25	.26	.26	.27	.28	.28	.29
	OVC	OVC	.09	.11	.12	.14	.15	.16	.18	.19	.20	.21	.22	.23	.24	.25	.26	.27	.27	.28	.28
OVC	OVC	CLR	.07	.08	.09	.10	.11	.12	.13	.14	.14	.15	.16	.17	.17	.18	.18	.18	.19	.19	.19
	SCT	SCT	.07	.08	.09	.10	.11	.12	.13	.14	.14	.15	.16	.16	.17	.18	.18	.18	.19	.19	.19
	BKN	BKN	.07	.08	.09	.10	.11	.12	.12	.13	.14	.15	.16	.16	.17	.17	.18	.18	.18	.18	.18
	OVC	OVC	.07	.07	.08	.09	.10	.11	.12	.13	.14	.14	.15	.16	.16	.17	.17	.18	.18	.18	.18

TABLE 8-2 SOLAR TRANSMISSION (T)

THIN HIGH CLOUD
LOW ALBEDO
VIS > 11 KM

STATE 1-1-1

COS Z

	05	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95
LOW MID HIGH																			
CLR CLR	.38	.42	.45	.49	.52	.56	.59	.62	.64	.66	.68	.70	.71	.72	.72	.73	.73	.73	.73
SCT SCT	.36	.40	.44	.48	.51	.55	.59	.61	.64	.66	.68	.69	.71	.72	.72	.72	.72	.72	.72
BKN BKN	.33	.37	.41	.45	.48	.52	.55	.58	.61	.63	.65	.67	.68	.69	.69	.69	.69	.69	.69
OVC OVC	.32	.36	.39	.42	.46	.49	.52	.55	.57	.60	.62	.64	.65	.66	.67	.67	.67	.67	.67
CLR SCT	.32	.36	.40	.43	.46	.50	.53	.56	.58	.60	.63	.64	.66	.67	.68	.68	.68	.68	.68
SCT SCT	.31	.35	.39	.42	.46	.49	.52	.55	.58	.60	.62	.64	.65	.66	.67	.68	.68	.68	.68
BKN BKN	.29	.32	.36	.39	.43	.46	.50	.53	.55	.58	.60	.62	.63	.64	.65	.65	.65	.65	.65
OVC OVC	.28	.31	.35	.38	.41	.44	.47	.50	.52	.55	.57	.59	.60	.62	.63	.64	.64	.64	.64
CLR BKN	.26	.29	.32	.35	.38	.41	.43	.46	.48	.50	.52	.53	.55	.55	.56	.56	.56	.56	.56
SCT SCT	.25	.28	.31	.34	.37	.40	.43	.45	.48	.50	.52	.53	.54	.55	.56	.56	.56	.56	.56
BKN BKN	.23	.26	.29	.32	.35	.38	.41	.44	.46	.48	.50	.51	.53	.53	.54	.54	.54	.54	.54
OVC OVC	.23	.26	.28	.31	.34	.36	.39	.41	.44	.46	.48	.49	.51	.52	.52	.53	.53	.53	.53
CLR OVC	.16	.17	.19	.20	.22	.23	.24	.26	.27	.28	.29	.30	.30	.31	.31	.31	.31	.31	.31
SCT SCT	.15	.17	.18	.20	.21	.23	.24	.25	.27	.28	.29	.29	.30	.31	.31	.31	.31	.31	.31
BKN BKN	.15	.16	.18	.19	.21	.22	.23	.25	.26	.27	.28	.29	.30	.30	.30	.30	.30	.30	.30
OVC OVC	.14	.16	.17	.19	.20	.21	.23	.24	.25	.26	.27	.28	.29	.29	.30	.30	.30	.30	.30
SCT CLR	.31	.35	.38	.42	.45	.49	.52	.55	.57	.60	.62	.64	.66	.67	.68	.69	.69	.69	.69
SCT SCT	.30	.34	.37	.41	.45	.48	.51	.54	.57	.59	.62	.64	.65	.67	.67	.68	.68	.68	.68
BKN BKN	.28	.31	.35	.38	.42	.45	.49	.52	.55	.57	.59	.61	.63	.64	.65	.66	.66	.66	.66
OVC OVC	.27	.30	.34	.37	.40	.43	.46	.49	.52	.54	.56	.58	.60	.62	.63	.64	.64	.64	.64
SCT SCT	.27	.31	.34	.37	.41	.44	.47	.50	.52	.55	.57	.59	.61	.62	.64	.65	.65	.65	.65
SCT SCT	.26	.30	.33	.37	.40	.43	.46	.49	.52	.55	.57	.59	.61	.62	.63	.64	.64	.65	.65
BKN BKN	.24	.28	.31	.34	.38	.41	.44	.47	.50	.53	.55	.57	.59	.60	.61	.62	.62	.62	.62
OVC OVC	.24	.27	.30	.33	.36	.39	.42	.45	.47	.50	.52	.54	.56	.58	.59	.61	.61	.61	.61
SCT BKN	.22	.25	.28	.31	.34	.36	.39	.41	.44	.46	.48	.50	.51	.52	.53	.54	.54	.54	.54
SCT SCT	.22	.24	.27	.30	.33	.36	.39	.41	.43	.46	.48	.49	.51	.52	.53	.54	.54	.54	.54
BKN BKN	.20	.23	.26	.29	.31	.34	.37	.40	.42	.44	.46	.48	.49	.50	.51	.52	.52	.52	.52
OVC OVC	.20	.22	.25	.28	.30	.33	.35	.38	.40	.42	.44	.46	.47	.49	.50	.51	.51	.51	.51
SCT OVC	.14	.15	.17	.18	.20	.21	.23	.24	.25	.26	.27	.28	.29	.30	.30	.31	.31	.31	.31
SCT SCT	.14	.15	.17	.18	.20	.21	.22	.24	.25	.26	.27	.28	.29	.29	.30	.30	.30	.30	.30
BKN BKN	.13	.14	.16	.17	.19	.20	.22	.23	.24	.25	.26	.27	.28	.29	.29	.30	.30	.30	.30
OVC OVC	.13	.14	.16	.17	.18	.20	.21	.22	.23	.25	.26	.27	.27	.28	.29	.29	.29	.29	.29

TABLE B-2 SOLAR TRANSMISSION (T)

THIN HIGH CLOUD
LOW ALBEDO
VIS < 11 KM

STATE 1-1-2

COS Z

LOW	MID	HIGH	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95
BKN	CLR	CLR	.26	.29	.32	.35	.37	.40	.42	.45	.47	.49	.51	.52	.54	.55	.55	.56	.56	.57	.57
	SCT	SCT	.25	.28	.31	.34	.37	.39	.42	.44	.47	.49	.50	.52	.53	.54	.55	.56	.56	.56	.56
	BKN	BKN	.23	.26	.29	.32	.35	.38	.40	.43	.45	.47	.49	.50	.52	.53	.53	.54	.54	.54	.54
	OVC	OVC	.23	.25	.28	.31	.33	.36	.38	.40	.43	.45	.47	.48	.50	.51	.52	.53	.53	.53	.53
BKN	SCT	CLR	.23	.26	.28	.31	.34	.36	.39	.41	.43	.45	.47	.49	.50	.51	.52	.53	.54	.54	.54
	SCT	SCT	.22	.25	.28	.31	.33	.36	.38	.41	.43	.45	.47	.49	.50	.51	.52	.53	.53	.53	.53
	BKN	BKN	.21	.23	.26	.29	.32	.34	.37	.39	.42	.44	.45	.47	.48	.50	.50	.51	.51	.51	.51
	OVC	OVC	.20	.23	.25	.28	.30	.33	.35	.37	.40	.42	.43	.45	.47	.48	.49	.50	.50	.51	.51
BKN	BKN	CLR	.19	.21	.24	.26	.29	.31	.33	.35	.37	.39	.40	.42	.43	.44	.45	.45	.46	.46	.46
	SCT	SCT	.18	.21	.23	.26	.28	.30	.33	.35	.37	.39	.40	.42	.43	.44	.44	.45	.45	.45	.45
	BKN	BKN	.17	.20	.22	.24	.27	.29	.31	.34	.36	.37	.39	.40	.42	.43	.43	.44	.44	.44	.44
	OVC	OVC	.17	.19	.21	.24	.26	.28	.30	.32	.34	.36	.37	.39	.40	.41	.42	.43	.43	.43	.43
BKN	OVC	CLR	.12	.14	.15	.16	.17	.19	.20	.21	.22	.23	.24	.25	.25	.26	.27	.27	.27	.27	.27
	SCT	SCT	.12	.13	.15	.16	.17	.19	.20	.21	.22	.23	.24	.25	.25	.26	.26	.26	.26	.26	.26
	BKN	BKN	.11	.13	.14	.15	.17	.18	.19	.20	.21	.22	.23	.24	.24	.25	.25	.26	.26	.26	.26
	OVC	OVC	.11	.12	.14	.15	.17	.18	.20	.21	.23	.24	.25	.27	.28	.29	.30	.31	.31	.32	.32
OVC	CLR	CLR	.13	.15	.17	.18	.20	.22	.23	.24	.26	.27	.28	.29	.30	.31	.32	.32	.33	.33	.34
	SCT	SCT	.13	.14	.16	.18	.20	.21	.23	.24	.26	.27	.28	.29	.30	.31	.32	.32	.33	.33	.33
	BKN	BKN	.12	.14	.15	.17	.19	.21	.22	.24	.25	.26	.27	.29	.29	.30	.31	.31	.32	.32	.32
	OVC	OVC	.12	.13	.15	.17	.18	.20	.21	.23	.24	.25	.27	.28	.29	.29	.30	.31	.31	.32	.32
OVC	SCT	CLR	.12	.14	.15	.17	.19	.20	.22	.23	.24	.26	.27	.28	.29	.30	.31	.31	.32	.32	.33
	SCT	SCT	.12	.13	.15	.17	.18	.20	.21	.23	.24	.26	.27	.28	.29	.30	.30	.31	.32	.32	.32
	BKN	BKN	.11	.12	.14	.16	.18	.19	.21	.22	.24	.25	.26	.27	.28	.29	.30	.30	.31	.31	.31
	OVC	OVC	.11	.12	.14	.15	.17	.18	.20	.21	.23	.24	.25	.26	.27	.28	.29	.30	.30	.31	.31
OVC	BKN	CLR	.10	.12	.13	.15	.16	.18	.19	.20	.22	.23	.24	.25	.26	.27	.27	.28	.28	.29	.29
	SCT	SCT	.10	.12	.13	.15	.16	.18	.19	.20	.22	.23	.24	.25	.26	.26	.27	.28	.28	.29	.29
	BKN	BKN	.09	.11	.12	.14	.16	.17	.19	.20	.21	.22	.23	.24	.25	.26	.26	.27	.28	.28	.29
	OVC	OVC	.09	.11	.12	.14	.15	.16	.18	.19	.20	.21	.23	.24	.25	.26	.26	.27	.27	.27	.27
OVC	OVC	CLR	.07	.08	.09	.10	.11	.12	.13	.14	.14	.15	.16	.17	.17	.18	.18	.19	.19	.19	.19
	SCT	SCT	.07	.08	.09	.10	.11	.12	.13	.14	.14	.15	.16	.16	.17	.18	.18	.19	.19	.19	.19
	BKN	BKN	.07	.08	.09	.10	.11	.12	.12	.13	.14	.15	.16	.16	.17	.17	.18	.18	.18	.18	.18
	OVC	OVC	.07	.07	.08	.09	.10	.11	.12	.13	.14	.14	.15	.16	.16	.17	.17	.18	.18	.18	.18

TABLE B-2 SOLAR TRANSMISSION (τ)THIN HIGH CLOUD
LOW ALBEDO
VIS < 11 KM

STATE 1-1-2

COS Z

	LOW	MID	HIGH	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95
CLR	CLR	CLR	CLR	.54	.58	.62	.66	.69	.72	.74	.77	.79	.80	.82	.83	.84	.84	.84	.84	.85	.85	.85
SCT	SCT	SCT	SCT	.52	.56	.61	.64	.68	.71	.74	.76	.78	.80	.81	.82	.83	.84	.84	.84	.84	.84	.84
BKN	BKN	BKN	BKN	.48	.53	.57	.61	.65	.69	.72	.74	.76	.78	.80	.81	.82	.82	.83	.83	.83	.83	.83
OVC	OVC	OVC	OVC	.48	.52	.56	.59	.63	.66	.69	.71	.74	.76	.77	.79	.80	.81	.81	.81	.81	.81	.81
CLR	SCT	CLR	CLR	.48	.53	.57	.61	.64	.67	.70	.73	.75	.77	.78	.80	.81	.81	.82	.82	.82	.82	.82
SCT	SCT	SCT	SCT	.47	.51	.56	.60	.63	.67	.70	.72	.74	.76	.76	.78	.79	.80	.82	.82	.82	.82	.82
BKN	BKN	BKN	BKN	.44	.48	.53	.57	.61	.64	.67	.70	.73	.75	.76	.78	.79	.80	.80	.80	.80	.80	.80
OVC	OVC	OVC	OVC	.43	.47	.51	.55	.59	.62	.65	.68	.70	.72	.74	.76	.77	.78	.79	.79	.79	.79	.79
CLR	BKN	CLR	CLR	.41	.45	.49	.53	.56	.60	.63	.65	.67	.69	.71	.72	.73	.74	.75	.75	.75	.75	.75
SCT	SCT	SCT	SCT	.40	.44	.48	.52	.56	.59	.62	.65	.67	.69	.71	.72	.73	.74	.75	.75	.75	.75	.75
BKN	BKN	BKN	BKN	.37	.41	.46	.50	.54	.57	.60	.63	.66	.68	.69	.71	.72	.73	.73	.73	.73	.73	.73
OVC	OVC	OVC	OVC	.37	.41	.45	.48	.52	.55	.58	.61	.63	.66	.67	.69	.70	.71	.72	.72	.72	.72	.72
CLR	OVC	CLR	CLR	.27	.30	.33	.35	.38	.40	.43	.45	.47	.48	.50	.51	.52	.53	.53	.54	.54	.54	.54
SCT	SCT	SCT	SCT	.27	.30	.32	.35	.38	.40	.42	.45	.46	.48	.50	.51	.52	.53	.53	.53	.53	.53	.53
BKN	BKN	BKN	BKN	.25	.28	.31	.34	.36	.39	.41	.44	.46	.47	.49	.50	.51	.52	.52	.52	.52	.52	.52
OVC	OVC	OVC	OVC	.25	.28	.30	.33	.35	.38	.40	.42	.44	.46	.48	.49	.50	.51	.51	.52	.52	.52	.52
SCT	CLR	CLR	CLR	.49	.53	.57	.61	.65	.68	.70	.73	.75	.77	.78	.80	.81	.82	.82	.83	.83	.83	.83
SCT	SCT	SCT	SCT	.48	.52	.56	.60	.64	.67	.70	.72	.75	.77	.78	.80	.81	.81	.82	.82	.82	.82	.82
BKN	BKN	BKN	BKN	.44	.49	.53	.57	.61	.65	.68	.70	.73	.75	.77	.78	.79	.80	.80	.81	.81	.81	.81
OVC	OVC	OVC	OVC	.44	.48	.52	.55	.59	.62	.65	.68	.70	.73	.74	.76	.77	.78	.79	.80	.80	.80	.80
SCT	SCT	CLR	CLR	.44	.49	.53	.57	.60	.63	.66	.69	.71	.73	.75	.77	.78	.79	.80	.81	.81	.81	.81
SCT	SCT	SCT	SCT	.43	.47	.52	.56	.59	.63	.66	.69	.71	.73	.75	.77	.78	.79	.79	.80	.80	.80	.80
BKN	BKN	BKN	BKN	.40	.45	.49	.53	.57	.61	.64	.67	.69	.72	.73	.75	.76	.77	.78	.78	.78	.78	.78
OVC	OVC	OVC	OVC	.40	.44	.48	.51	.55	.58	.61	.64	.67	.69	.71	.73	.75	.76	.77	.77	.78	.78	.78
SCT	BKN	CLR	CLR	.38	.42	.46	.49	.53	.56	.59	.62	.64	.66	.68	.70	.71	.72	.73	.73	.73	.73	.73
SCT	SCT	SCT	SCT	.37	.41	.45	.49	.52	.56	.59	.62	.64	.66	.68	.70	.71	.72	.73	.73	.73	.73	.73
BKN	BKN	BKN	BKN	.34	.39	.43	.47	.50	.54	.57	.60	.63	.65	.67	.68	.70	.71	.71	.72	.72	.72	.72
OVC	OVC	OVC	OVC	.34	.38	.42	.45	.49	.52	.55	.58	.61	.63	.65	.67	.68	.69	.70	.71	.71	.71	.71
SCT	OVC	CLR	CLR	.26	.28	.31	.33	.36	.38	.40	.43	.44	.46	.48	.49	.50	.51	.52	.52	.52	.52	.52
SCT	SCT	SCT	SCT	.25	.28	.30	.33	.35	.38	.40	.42	.44	.46	.48	.49	.50	.51	.52	.52	.52	.52	.52
BKN	BKN	BKN	BKN	.24	.26	.29	.32	.34	.37	.39	.41	.43	.45	.47	.48	.49	.50	.51	.51	.51	.51	.51
OVC	OVC	OVC	OVC	.23	.26	.28	.31	.33	.36	.38	.40	.42	.44	.46	.47	.48	.49	.50	.51	.51	.51	.51

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TABLE B-2 SOLAR TRANSMISSION (T)

THIN HIGH CLOUD
HIGH ALBEDO
VIS > 11 KM

STATE 1-2-1

COS Z

LOW	MID	HIGH	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95
BKN	CLR	CLR	.44	.48	.52	.55	.59	.61	.64	.66	.68	.70	.72	.73	.74	.75	.75	.76	.76	.76	.76
	SCT	SCT	.43	.47	.51	.54	.58	.61	.64	.66	.68	.70	.71	.73	.74	.75	.75	.76	.76	.76	.76
	BKN	BKN	.40	.44	.48	.52	.55	.59	.62	.64	.66	.68	.70	.71	.72	.73	.74	.74	.74	.74	.74
	OVC	OVC	.39	.43	.47	.50	.53	.57	.59	.62	.64	.66	.68	.69	.71	.72	.72	.73	.73	.73	.73
BKN	SCT	CLR	.40	.44	.48	.51	.55	.58	.60	.63	.65	.67	.69	.70	.71	.72	.73	.74	.74	.74	.74
	SCT	SCT	.39	.43	.47	.51	.54	.57	.60	.63	.65	.67	.68	.70	.71	.72	.73	.74	.74	.74	.74
	BKN	BKN	.36	.40	.44	.48	.52	.55	.58	.61	.63	.65	.67	.69	.70	.71	.71	.72	.72	.72	.72
	OVC	OVC	.36	.40	.43	.47	.50	.53	.55	.59	.61	.63	.65	.67	.68	.69	.70	.71	.71	.71	.71
BKN	BKN	CLR	.34	.38	.42	.45	.48	.51	.54	.57	.59	.61	.62	.64	.65	.66	.67	.67	.67	.67	.67
	SCT	SCT	.33	.37	.41	.44	.48	.51	.54	.56	.58	.60	.62	.64	.65	.66	.66	.67	.67	.67	.67
	BKN	BKN	.31	.35	.39	.43	.46	.49	.52	.55	.57	.59	.61	.62	.64	.65	.65	.66	.66	.66	.66
	OVC	OVC	.31	.34	.38	.41	.44	.47	.50	.53	.55	.57	.59	.61	.62	.63	.64	.65	.65	.65	.65
BKN	OVC	CLR	.23	.26	.28	.31	.33	.35	.37	.39	.41	.42	.44	.45	.46	.47	.47	.48	.48	.48	.48
	SCT	SCT	.23	.25	.28	.30	.33	.35	.37	.39	.41	.42	.43	.45	.46	.47	.47	.48	.48	.48	.48
	BKN	BKN	.22	.24	.27	.29	.32	.34	.36	.38	.40	.41	.43	.44	.45	.46	.46	.47	.47	.47	.47
	OVC	OVC	.22	.24	.26	.28	.31	.33	.35	.37	.39	.40	.42	.43	.44	.45	.46	.46	.46	.46	.46
OVC	CLR	CLR	.26	.29	.32	.35	.38	.41	.43	.45	.47	.49	.50	.52	.53	.54	.55	.56	.57	.57	.57
	SCT	SCT	.25	.29	.32	.35	.38	.40	.43	.45	.47	.49	.50	.52	.53	.54	.55	.56	.56	.56	.56
	BKN	BKN	.24	.27	.30	.33	.36	.39	.41	.44	.46	.48	.49	.51	.52	.53	.54	.55	.55	.55	.55
	OVC	OVC	.23	.26	.29	.32	.35	.38	.40	.42	.44	.46	.48	.49	.51	.52	.53	.54	.54	.54	.54
OVC	SCT	CLR	.24	.27	.30	.33	.36	.38	.41	.43	.45	.47	.48	.50	.51	.52	.53	.54	.55	.55	.55
	SCT	SCT	.23	.27	.30	.33	.35	.38	.41	.43	.45	.47	.48	.50	.51	.52	.53	.54	.54	.54	.54
	BKN	BKN	.22	.25	.28	.31	.34	.37	.39	.42	.44	.46	.47	.49	.50	.51	.52	.53	.53	.53	.53
	OVC	OVC	.22	.25	.27	.30	.33	.36	.38	.40	.42	.44	.46	.48	.49	.50	.51	.52	.53	.53	.53
OVC	BKN	CLR	.21	.24	.27	.29	.32	.35	.37	.39	.41	.43	.44	.46	.47	.48	.49	.50	.50	.50	.50
	SCT	SCT	.20	.23	.26	.29	.32	.34	.37	.39	.41	.43	.44	.46	.47	.48	.49	.50	.50	.50	.50
	BKN	BKN	.19	.22	.25	.28	.31	.33	.36	.38	.40	.42	.43	.45	.46	.47	.48	.49	.49	.49	.49
	OVC	OVC	.19	.22	.24	.27	.30	.32	.34	.37	.39	.41	.42	.44	.45	.46	.47	.48	.48	.48	.48
OVC	OVC	CLR	.15	.17	.19	.21	.23	.24	.26	.28	.29	.30	.32	.33	.34	.34	.35	.36	.36	.36	.36
	SCT	SCT	.15	.17	.19	.21	.22	.24	.26	.28	.29	.30	.32	.33	.34	.34	.35	.36	.36	.36	.36
	BKN	BKN	.14	.16	.18	.20	.22	.24	.25	.27	.28	.30	.31	.32	.33	.34	.34	.35	.35	.35	.35
	OVC	OVC	.14	.16	.17	.19	.21	.23	.25	.26	.28	.29	.30	.31	.32	.33	.34	.35	.35	.35	.35

TABLE B-2 SOLAR TRANSMISSION (T)

THIN HIGH CLOUD
HIGH ALBEDO
VIS > 11 KM

STATE 1-2-1

COS Z

LOW MID HIGH	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95
CLR CLR	.48	.52	.56	.59	.63	.66	.68	.71	.73	.75	.76	.78	.79	.79	.80	.80	.80	.80	.80
SCT SCT	.47	.51	.55	.58	.62	.65	.68	.70	.73	.74	.76	.77	.78	.79	.79	.80	.80	.80	.80
BKN BKN	.43	.47	.52	.56	.59	.63	.66	.68	.71	.73	.74	.76	.77	.77	.78	.78	.78	.78	.78
OVC OVC	.43	.46	.50	.54	.57	.60	.63	.66	.68	.70	.72	.73	.75	.76	.76	.77	.77	.77	.77
CLR SCT	.43	.47	.51	.55	.58	.61	.64	.67	.69	.71	.73	.74	.75	.76	.77	.77	.77	.77	.77
SCT SCT	.42	.46	.50	.54	.57	.61	.64	.66	.69	.71	.73	.74	.75	.76	.77	.77	.77	.77	.77
BKN BKN	.39	.43	.47	.51	.55	.58	.61	.64	.67	.69	.71	.72	.74	.75	.75	.75	.75	.75	.75
OVC OVC	.39	.42	.46	.49	.53	.56	.59	.62	.64	.67	.69	.70	.72	.73	.74	.74	.74	.74	.74
CLR BKN	.37	.40	.44	.47	.51	.54	.57	.59	.62	.64	.66	.67	.68	.69	.70	.70	.70	.70	.70
SCT SCT	.36	.39	.43	.47	.50	.53	.56	.59	.61	.64	.65	.67	.68	.69	.69	.70	.70	.70	.70
BKN BKN	.33	.37	.41	.45	.48	.51	.55	.57	.60	.62	.64	.65	.67	.68	.68	.68	.68	.68	.68
OVC OVC	.33	.36	.40	.43	.46	.50	.53	.55	.58	.60	.62	.64	.66	.66	.67	.67	.67	.67	.67
CLR OVC	.24	.27	.29	.31	.34	.36	.38	.40	.42	.43	.45	.46	.47	.48	.48	.49	.49	.49	.49
SCT SCT	.24	.26	.29	.31	.33	.35	.38	.40	.41	.43	.45	.46	.47	.48	.48	.49	.49	.49	.49
BKN BKN	.23	.25	.27	.30	.32	.34	.37	.39	.41	.42	.44	.45	.46	.47	.47	.48	.48	.48	.48
OVC OVC	.22	.25	.27	.29	.31	.33	.35	.37	.39	.41	.43	.44	.45	.46	.47	.47	.47	.47	.47
SCT CLR	.44	.48	.52	.56	.59	.62	.65	.68	.70	.72	.74	.75	.76	.77	.78	.78	.78	.78	.78
SCT SCT	.43	.47	.51	.55	.58	.62	.64	.67	.69	.72	.73	.75	.76	.77	.78	.78	.78	.78	.78
BKN BKN	.40	.44	.48	.52	.56	.59	.62	.65	.68	.70	.72	.73	.74	.75	.76	.76	.76	.76	.76
OVC OVC	.39	.43	.47	.50	.54	.57	.60	.63	.65	.67	.69	.71	.72	.74	.75	.75	.75	.75	.75
SCT CLR	.40	.44	.48	.51	.55	.58	.61	.64	.66	.68	.70	.72	.73	.74	.75	.76	.76	.76	.76
SCT SCT	.39	.43	.47	.51	.54	.57	.61	.63	.66	.68	.70	.72	.73	.74	.75	.76	.76	.76	.76
BKN BKN	.36	.40	.44	.48	.52	.55	.59	.62	.64	.66	.68	.70	.72	.73	.74	.74	.74	.74	.74
OVC OVC	.36	.39	.43	.47	.50	.53	.56	.59	.62	.64	.66	.68	.70	.71	.72	.73	.73	.73	.73
SCT BKN	.34	.38	.41	.45	.48	.51	.54	.57	.59	.61	.63	.65	.66	.67	.68	.69	.69	.69	.69
SCT SCT	.33	.37	.41	.44	.48	.51	.54	.57	.59	.61	.63	.65	.66	.67	.68	.68	.68	.68	.68
BKN BKN	.31	.35	.38	.42	.46	.49	.52	.55	.58	.60	.62	.63	.65	.66	.67	.67	.67	.67	.67
OVC OVC	.31	.34	.37	.41	.44	.47	.50	.53	.56	.58	.60	.62	.63	.64	.65	.66	.66	.66	.66
SCT OVC	.23	.25	.28	.30	.32	.34	.36	.38	.40	.42	.43	.45	.46	.47	.47	.48	.48	.48	.48
SCT SCT	.22	.25	.27	.30	.32	.34	.36	.38	.40	.42	.43	.45	.46	.47	.47	.48	.48	.48	.48
BKN BKN	.21	.24	.26	.28	.31	.33	.35	.37	.39	.41	.42	.44	.45	.46	.46	.47	.47	.47	.47
OVC OVC	.21	.23	.26	.28	.30	.32	.34	.36	.38	.40	.41	.43	.44	.45	.46	.46	.46	.46	.46

TABLE B-2 SOLAR TRANSMISSION (T)

THIN HIGH CLOUD
HIGH ALBEDO
VIS < 11 KM

STATE 1-2-2

LOW MID HIGH	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95
BKN CLR	.40	.44	.48	.51	.54	.57	.60	.62	.64	.66	.68	.69	.70	.71	.72	.72	.72	.72	.72
SCT	.39	.43	.47	.50	.53	.56	.59	.62	.64	.66	.68	.69	.70	.71	.72	.72	.72	.72	.72
BKN	.36	.40	.44	.48	.51	.54	.57	.60	.62	.64	.66	.67	.69	.70	.70	.71	.71	.71	.71
OVC	.36	.39	.43	.46	.49	.52	.55	.58	.60	.62	.64	.66	.67	.68	.69	.69	.70	.70	.70
BKN SCT	.36	.40	.44	.47	.50	.53	.56	.59	.61	.63	.65	.66	.68	.69	.69	.70	.70	.70	.70
SCT	.35	.39	.43	.46	.50	.53	.56	.58	.61	.63	.65	.66	.67	.68	.69	.70	.70	.70	.70
BKN	.33	.37	.41	.44	.48	.51	.54	.57	.59	.61	.63	.65	.66	.67	.68	.68	.68	.68	.68
OVC	.33	.36	.40	.43	.46	.49	.52	.55	.57	.59	.61	.63	.65	.66	.67	.67	.68	.68	.68
BKN BKN	.31	.35	.38	.41	.44	.47	.50	.53	.55	.57	.59	.60	.61	.62	.63	.64	.64	.64	.64
CLR	.30	.34	.37	.41	.44	.47	.50	.52	.55	.57	.58	.60	.61	.62	.63	.64	.64	.64	.64
SCT	.28	.32	.36	.39	.42	.45	.48	.51	.53	.55	.57	.59	.60	.61	.62	.62	.62	.62	.62
BKN	.28	.31	.35	.38	.41	.44	.47	.49	.52	.54	.56	.57	.59	.60	.61	.61	.61	.61	.61
OVC	.28	.31	.35	.38	.41	.44	.47	.49	.52	.54	.56	.57	.59	.60	.61	.61	.61	.61	.61
BKN OVC	.21	.24	.26	.28	.30	.32	.34	.36	.38	.39	.40	.42	.43	.44	.44	.45	.45	.45	.45
CLR	.21	.23	.25	.28	.30	.32	.34	.36	.37	.39	.40	.42	.43	.44	.44	.45	.45	.45	.45
SCT	.20	.22	.24	.27	.29	.31	.33	.35	.37	.38	.40	.41	.42	.43	.43	.44	.44	.44	.44
BKN	.20	.22	.24	.26	.28	.30	.32	.34	.36	.37	.39	.40	.41	.42	.43	.43	.43	.43	.43
OVC	.20	.22	.24	.26	.28	.30	.32	.34	.36	.37	.39	.40	.41	.42	.43	.43	.43	.43	.43
OVC CLR	.26	.29	.32	.35	.38	.41	.43	.45	.47	.49	.50	.52	.53	.54	.55	.56	.56	.56	.56
CLR	.25	.29	.32	.35	.38	.40	.43	.45	.47	.49	.50	.52	.53	.54	.55	.55	.55	.55	.55
SCT	.24	.27	.30	.33	.36	.39	.41	.44	.46	.48	.49	.51	.52	.53	.54	.54	.54	.54	.54
BKN	.23	.26	.29	.32	.35	.38	.40	.42	.44	.46	.48	.49	.51	.52	.53	.53	.53	.53	.53
OVC	.23	.26	.29	.32	.35	.38	.40	.42	.44	.46	.48	.49	.51	.52	.53	.53	.53	.53	.53
OVC SCT	.24	.27	.30	.33	.36	.38	.41	.43	.45	.47	.48	.50	.51	.52	.53	.54	.54	.54	.54
CLR	.23	.27	.30	.33	.35	.38	.41	.43	.45	.47	.48	.50	.51	.52	.53	.54	.54	.54	.54
SCT	.22	.25	.28	.31	.34	.37	.39	.42	.44	.46	.47	.49	.50	.51	.52	.53	.53	.53	.53
BKN	.22	.25	.28	.31	.34	.37	.39	.42	.44	.46	.47	.49	.50	.51	.52	.53	.53	.53	.53
OVC	.22	.25	.28	.31	.34	.37	.39	.42	.44	.46	.47	.49	.50	.51	.52	.53	.53	.53	.53
OVC BKN	.21	.24	.27	.29	.32	.35	.37	.39	.41	.43	.44	.46	.47	.48	.49	.49	.50	.50	.50
CLR	.20	.23	.26	.29	.32	.34	.37	.39	.41	.43	.44	.46	.47	.48	.49	.49	.50	.50	.50
SCT	.19	.22	.25	.28	.31	.33	.36	.38	.40	.42	.43	.45	.46	.47	.48	.48	.49	.49	.49
BKN	.19	.22	.25	.28	.31	.33	.36	.38	.40	.42	.43	.45	.46	.47	.48	.48	.49	.49	.49
OVC	.19	.22	.25	.28	.31	.33	.36	.38	.40	.42	.43	.45	.46	.47	.48	.48	.49	.49	.49
OVC CLR	.15	.17	.19	.21	.23	.24	.26	.28	.29	.30	.32	.33	.34	.34	.35	.36	.36	.36	.36
CLR	.15	.17	.19	.21	.22	.24	.26	.28	.29	.30	.32	.33	.34	.34	.35	.36	.36	.36	.36
SCT	.14	.16	.18	.20	.22	.24	.25	.27	.28	.30	.31	.32	.33	.34	.34	.35	.35	.35	.35
BKN	.14	.16	.18	.20	.22	.24	.25	.27	.28	.30	.31	.32	.33	.34	.34	.35	.35	.35	.35
OVC	.14	.16	.17	.19	.21	.23	.25	.26	.28	.29	.30	.31	.32	.33	.34	.34	.35	.35	.35

TABLE 8-2 SOLAR TRANSMISSION (1)

THIN HIGH CLOUD
HIGH ALBEDO
VIS < 11 KM

STATE 1-2-2

			COS Z																			
LOW	MID	HIGH	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95	
CLR	CLR	CLR	.45	.49	.54	.58	.61	.65	.68	.71	.73	.75	.77	.78	.79	.79	.80	.80	.80	.80	.80	
	SCT	SCT	.40	.44	.48	.52	.56	.60	.63	.66	.69	.71	.73	.75	.76	.77	.78	.78	.78	.78	.78	
	BKN	BKN	.36	.40	.43	.47	.50	.54	.57	.59	.62	.64	.66	.67	.68	.69	.70	.70	.70	.70	.70	
	OVC	OVC	.28	.31	.33	.36	.39	.42	.45	.48	.50	.52	.54	.56	.58	.59	.60	.60	.61	.61	.61	
CLR	SCT	CLR	.38	.42	.46	.50	.54	.57	.60	.63	.66	.68	.70	.71	.73	.74	.74	.75	.75	.75	.75	
	SCT	SCT	.34	.38	.42	.46	.50	.53	.57	.60	.62	.65	.67	.69	.70	.72	.72	.73	.73	.73	.73	
	BKN	BKN	.31	.35	.38	.42	.45	.48	.51	.54	.56	.59	.61	.62	.63	.64	.65	.65	.66	.66	.66	
	OVC	OVC	.24	.27	.30	.33	.36	.38	.41	.44	.46	.48	.51	.52	.54	.55	.56	.57	.58	.58	.58	
CLR	BKN	CLR	.30	.34	.37	.40	.43	.46	.49	.52	.54	.56	.57	.59	.60	.61	.61	.61	.61	.61	.61	
	SCT	SCT	.27	.31	.34	.37	.40	.43	.46	.49	.51	.54	.55	.57	.58	.59	.60	.60	.60	.60	.60	
	BKN	BKN	.25	.28	.31	.34	.37	.40	.42	.45	.47	.49	.51	.52	.53	.54	.55	.55	.55	.55	.55	
	OVC	OVC	.20	.22	.25	.27	.30	.32	.35	.37	.39	.41	.43	.45	.46	.47	.48	.49	.49	.49	.49	
SCT	CLR	OVC	.18	.20	.21	.23	.24	.26	.27	.28	.29	.30	.31	.32	.33	.33	.34	.34	.34	.34	.34	
	SCT	SCT	.17	.18	.20	.21	.23	.25	.26	.27	.28	.30	.31	.31	.32	.33	.33	.33	.34	.34	.34	
	BKN	BKN	.15	.17	.19	.20	.22	.23	.24	.26	.27	.28	.29	.30	.30	.31	.31	.31	.31	.31	.31	
	OVC	OVC	.13	.14	.16	.17	.18	.20	.21	.22	.23	.25	.26	.26	.27	.28	.28	.29	.29	.29	.29	
SCT	CLR	CLR	.37	.41	.45	.49	.52	.56	.59	.62	.65	.67	.69	.71	.72	.73	.74	.75	.76	.76	.76	
	SCT	SCT	.33	.37	.41	.45	.48	.52	.55	.59	.61	.64	.66	.68	.70	.71	.73	.73	.74	.74	.75	
	BKN	BKN	.30	.33	.37	.40	.44	.47	.50	.53	.55	.58	.60	.62	.63	.64	.65	.66	.66	.66	.66	
	OVC	OVC	.23	.26	.29	.32	.35	.37	.40	.43	.45	.48	.50	.52	.54	.55	.56	.57	.58	.58	.58	
SCT	SCT	SCT	.32	.36	.39	.43	.47	.50	.53	.56	.59	.61	.63	.65	.67	.68	.69	.70	.71	.71	.72	
	SCT	SCT	.29	.32	.36	.40	.43	.47	.50	.53	.56	.59	.61	.63	.65	.67	.68	.69	.70	.70	.71	
	BKN	BKN	.26	.30	.33	.36	.39	.42	.45	.48	.51	.53	.55	.57	.59	.60	.61	.62	.63	.63	.63	
	OVC	OVC	.21	.23	.26	.29	.31	.34	.37	.39	.42	.44	.47	.49	.50	.52	.53	.54	.55	.55	.55	
SCT	BKN	CLR	.26	.29	.32	.35	.38	.41	.44	.46	.49	.51	.53	.54	.56	.57	.58	.59	.59	.59	.59	
	SCT	SCT	.23	.26	.30	.33	.36	.39	.42	.44	.47	.49	.51	.53	.54	.56	.57	.58	.58	.58	.58	
	BKN	BKN	.21	.24	.27	.30	.33	.36	.38	.41	.43	.45	.47	.48	.50	.51	.52	.52	.52	.52	.52	
	OVC	OVC	.17	.20	.22	.24	.27	.29	.32	.34	.36	.38	.40	.42	.43	.45	.46	.47	.47	.47	.47	
SCT	OVC	CLR	.16	.17	.19	.21	.22	.23	.25	.26	.27	.28	.29	.30	.31	.32	.32	.33	.33	.33	.33	
	SCT	SCT	.15	.16	.18	.19	.21	.22	.24	.25	.27	.28	.29	.30	.31	.31	.32	.32	.32	.32	.32	
	BKN	BKN	.14	.15	.17	.18	.20	.21	.22	.24	.25	.26	.27	.28	.29	.29	.30	.30	.30	.30	.30	
	OVC	OVC	.11	.13	.14	.15	.17	.18	.19	.21	.22	.23	.24	.25	.26	.27	.27	.28	.28	.28	.28	

TABLE B-2 SOLAR TRANSMISSION (T)

THICK HIGH CLOUD
LOW ALBEDO
VIS > 11 KM

STATE 2-1-1

COS Z

LOW	MID	HIGH	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95
BKN	CLR	CLR	.30	.33	.36	.39	.42	.45	.48	.50	.52	.54	.55	.57	.58	.59	.60	.60	.61	.61	.61
	SCT	SCT	.27	.30	.33	.36	.39	.42	.45	.47	.50	.52	.54	.55	.56	.58	.59	.59	.60	.60	.60
	BKN	BKN	.25	.27	.30	.33	.36	.38	.41	.43	.45	.47	.49	.50	.52	.52	.53	.54	.54	.54	.54
	OVC	OVC	.19	.22	.24	.26	.29	.31	.33	.36	.38	.40	.42	.43	.45	.46	.47	.48	.48	.48	.48
BKN	SCT	CLR	.26	.29	.32	.35	.38	.41	.43	.46	.48	.50	.51	.53	.54	.55	.56	.57	.58	.58	.58
	SCT	SCT	.24	.27	.30	.33	.36	.38	.41	.43	.46	.48	.50	.51	.53	.54	.55	.56	.57	.57	.57
	BKN	BKN	.22	.25	.27	.30	.33	.35	.38	.40	.42	.44	.46	.47	.48	.50	.50	.51	.51	.52	.52
	OVC	OVC	.17	.20	.22	.24	.26	.29	.31	.33	.35	.37	.39	.41	.42	.43	.44	.45	.46	.46	.46
BKN	BKN	CLR	.22	.24	.27	.29	.32	.34	.37	.39	.41	.42	.44	.45	.46	.47	.48	.48	.49	.49	.49
	SCT	SCT	.20	.22	.25	.27	.30	.32	.35	.37	.39	.41	.42	.44	.45	.46	.47	.48	.48	.48	.48
	BKN	BKN	.18	.21	.23	.25	.28	.30	.32	.34	.36	.38	.39	.41	.42	.43	.43	.44	.44	.44	.44
	OVC	OVC	.15	.17	.19	.21	.23	.25	.27	.29	.31	.32	.34	.35	.37	.38	.39	.39	.40	.40	.40
BKN	OVC	CLR	.14	.15	.17	.18	.19	.20	.22	.23	.24	.25	.26	.27	.27	.28	.28	.29	.29	.29	.29
	SCT	SCT	.13	.14	.16	.17	.18	.20	.21	.22	.23	.24	.25	.26	.27	.27	.28	.28	.28	.29	.29
	BKN	BKN	.11	.13	.14	.16	.18	.19	.21	.22	.23	.25	.26	.27	.28	.29	.29	.29	.29	.29	.29
	OVC	OVC	.09	.10	.12	.13	.15	.16	.18	.19	.20	.22	.23	.24	.25	.26	.26	.27	.28	.28	.28
OVC	CLR	CLR	.13	.15	.17	.18	.20	.22	.23	.24	.26	.27	.28	.29	.30	.31	.32	.32	.33	.33	.34
	SCT	SCT	.12	.14	.15	.17	.19	.20	.22	.23	.24	.26	.27	.28	.29	.30	.31	.31	.32	.32	.32
	BKN	BKN	.10	.12	.13	.15	.16	.18	.19	.21	.22	.23	.24	.26	.27	.27	.28	.29	.29	.29	.30
	OVC	OVC	.08	.10	.11	.12	.14	.15	.17	.18	.19	.20	.22	.23	.24	.25	.25	.26	.27	.27	.27
OVC	SCT	CLR	.12	.14	.15	.17	.19	.20	.22	.23	.24	.26	.27	.28	.29	.30	.31	.31	.32	.32	.33
	SCT	SCT	.11	.13	.14	.16	.18	.19	.21	.22	.24	.25	.26	.27	.28	.29	.30	.31	.31	.32	.32
	BKN	BKN	.10	.12	.13	.15	.16	.18	.19	.21	.22	.23	.24	.26	.27	.27	.28	.29	.29	.29	.30
	OVC	OVC	.08	.10	.11	.12	.14	.15	.17	.18	.19	.20	.22	.23	.24	.25	.25	.26	.27	.27	.27
OVC	BKN	CLR	.10	.12	.13	.15	.16	.18	.19	.20	.22	.23	.24	.25	.26	.27	.27	.28	.28	.29	.29
	SCT	SCT	.09	.11	.12	.14	.16	.17	.18	.20	.21	.22	.23	.24	.25	.26	.27	.27	.28	.28	.28
	BKN	BKN	.09	.10	.12	.13	.14	.16	.17	.19	.20	.21	.22	.23	.24	.24	.25	.26	.26	.26	.26
	OVC	OVC	.07	.08	.10	.11	.12	.14	.15	.16	.17	.18	.20	.21	.21	.22	.23	.23	.24	.24	.24
OVC	OVC	CLR	.07	.08	.09	.10	.11	.12	.13	.14	.14	.15	.16	.17	.17	.18	.18	.18	.19	.19	.19
	SCT	SCT	.07	.08	.09	.10	.11	.11	.12	.13	.14	.15	.16	.16	.17	.17	.18	.18	.18	.19	.19
	BKN	BKN	.06	.07	.08	.09	.10	.11	.12	.13	.13	.14	.15	.15	.16	.16	.17	.17	.17	.18	.18
	OVC	OVC	.05	.06	.07	.08	.09	.09	.10	.11	.12	.13	.13	.14	.15	.15	.16	.16	.16	.16	.17

TABLE B-2 SOLAR TRANSMISSION (T)

THICK HIGH CLOUD
LOW ALBEDO
VIS > 11 KM

STATE 2-1-1

COS Z

LOW MID HIGH	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95
CLR CLR	.38	.42	.45	.49	.52	.56	.59	.62	.64	.66	.68	.70	.71	.72	.72	.73	.73	.73	.73
SCT SCT	.34	.37	.41	.45	.48	.52	.55	.58	.61	.63	.66	.67	.69	.70	.71	.71	.71	.71	.71
BKN BKN	.30	.34	.37	.40	.44	.47	.50	.52	.55	.57	.59	.61	.62	.63	.63	.64	.64	.64	.64
OVC OVC	.24	.26	.29	.32	.34	.37	.40	.42	.45	.47	.49	.51	.53	.54	.55	.55	.56	.56	.56
CLR SCT	.32	.36	.40	.43	.46	.50	.53	.56	.58	.60	.63	.64	.66	.67	.68	.68	.68	.68	.68
SCT SCT	.29	.33	.36	.40	.43	.46	.50	.53	.55	.58	.60	.62	.64	.65	.66	.67	.67	.67	.67
BKN BKN	.27	.30	.33	.36	.39	.42	.45	.48	.50	.52	.54	.56	.58	.59	.60	.60	.60	.60	.60
OVC OVC	.21	.23	.26	.28	.31	.34	.36	.39	.41	.44	.46	.48	.49	.51	.52	.52	.53	.53	.53
CLR BKN	.26	.29	.32	.35	.38	.41	.43	.46	.48	.50	.52	.53	.55	.55	.56	.56	.56	.56	.56
SCT SCT	.24	.26	.29	.32	.35	.38	.41	.44	.46	.48	.50	.52	.53	.54	.55	.55	.55	.55	.55
BKN BKN	.22	.24	.27	.30	.32	.35	.38	.40	.42	.44	.46	.47	.49	.50	.50	.50	.50	.50	.50
OVC OVC	.17	.20	.22	.24	.26	.29	.31	.33	.35	.37	.39	.41	.42	.43	.44	.45	.45	.45	.45
CLR OVC	.16	.17	.19	.20	.22	.23	.24	.26	.27	.28	.29	.30	.30	.31	.31	.31	.32	.32	.32
SCT SCT	.15	.16	.18	.19	.21	.22	.23	.25	.26	.27	.28	.29	.30	.30	.31	.31	.31	.31	.31
BKN BKN	.14	.15	.16	.18	.19	.21	.22	.23	.24	.25	.26	.27	.28	.28	.29	.29	.29	.29	.29
OVC OVC	.11	.13	.14	.15	.16	.18	.19	.20	.21	.22	.23	.24	.25	.26	.26	.27	.27	.27	.27
SCT CLR	.31	.35	.38	.42	.45	.49	.52	.55	.57	.60	.62	.64	.66	.67	.68	.69	.69	.69	.69
SCT SCT	.28	.32	.35	.39	.42	.45	.49	.52	.55	.57	.60	.62	.64	.65	.66	.67	.68	.68	.68
BKN BKN	.25	.29	.32	.35	.38	.41	.44	.47	.49	.52	.54	.56	.57	.59	.60	.60	.61	.61	.61
OVC OVC	.20	.23	.25	.28	.30	.33	.36	.38	.41	.43	.45	.47	.49	.51	.52	.53	.53	.53	.53
SCT SCT	.27	.31	.34	.37	.41	.44	.47	.50	.52	.55	.57	.59	.61	.62	.64	.64	.65	.65	.65
SCT SCT	.25	.28	.31	.35	.38	.41	.44	.47	.50	.53	.55	.57	.59	.61	.62	.63	.64	.64	.64
BKN BKN	.23	.26	.28	.31	.34	.37	.40	.43	.46	.48	.50	.52	.54	.55	.56	.57	.57	.57	.57
OVC OVC	.18	.20	.23	.25	.28	.30	.33	.35	.38	.40	.42	.44	.46	.48	.49	.50	.51	.51	.51
SCT BKN	.22	.25	.28	.31	.34	.36	.39	.41	.44	.46	.48	.50	.51	.52	.53	.54	.54	.54	.54
SCT SCT	.20	.23	.26	.29	.31	.34	.37	.40	.42	.44	.46	.48	.50	.51	.52	.53	.53	.53	.53
BKN BKN	.19	.21	.24	.26	.29	.32	.34	.36	.39	.41	.43	.44	.46	.47	.48	.48	.48	.48	.48
OVC OVC	.15	.17	.19	.22	.24	.26	.28	.30	.33	.35	.37	.38	.40	.41	.42	.43	.43	.43	.43
SCT OVC	.14	.15	.17	.18	.20	.21	.23	.24	.25	.26	.27	.28	.29	.30	.30	.30	.31	.31	.31
SCT SCT	.13	.14	.16	.17	.19	.20	.22	.23	.24	.25	.27	.28	.28	.29	.30	.30	.30	.30	.30
BKN BKN	.12	.13	.15	.16	.18	.19	.20	.22	.23	.24	.25	.26	.27	.27	.28	.28	.28	.28	.28
OVC OVC	.10	.11	.13	.14	.15	.16	.18	.19	.20	.21	.22	.23	.24	.25	.25	.26	.26	.26	.26

TABLE B-2 SOLAR TRANSMISSION (T)

THICK HIGH CLOUD
LOW ALBEDO
VIS < 11 KM

STATE 2-1-2

COS Z

	LOW	MID	HIGH	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95
BKN	CLR	CLR	.26	.29	.32	.35	.37	.40	.42	.45	.47	.49	.51	.52	.54	.55	.56	.57	.57	.57	.57	.57
	SCT	SCT	.23	.26	.29	.32	.35	.38	.40	.43	.45	.47	.49	.51	.52	.54	.55	.56	.56	.56	.56	.56
	BKN	BKN	.21	.24	.27	.29	.32	.34	.37	.39	.41	.43	.45	.46	.48	.49	.50	.50	.50	.50	.50	.50
	OVC	OVC	.17	.19	.21	.23	.26	.28	.30	.32	.34	.36	.38	.40	.41	.43	.44	.44	.45	.45	.45	.45
BKN	SCT	CLR	.23	.26	.28	.31	.34	.36	.39	.41	.43	.45	.47	.49	.50	.51	.51	.52	.53	.54	.54	.54
	SCT	SCT	.21	.24	.26	.29	.32	.34	.37	.39	.42	.44	.46	.47	.49	.50	.50	.51	.52	.53	.53	.53
	BKN	BKN	.19	.22	.24	.27	.29	.31	.34	.36	.38	.40	.42	.43	.45	.46	.47	.47	.48	.48	.48	.48
	OVC	OVC	.15	.17	.19	.22	.24	.26	.28	.30	.32	.34	.36	.38	.39	.40	.41	.42	.42	.43	.43	.43
BKN	BKN	CLR	.19	.21	.24	.26	.29	.31	.33	.35	.37	.39	.40	.42	.43	.44	.44	.45	.45	.46	.46	.46
	SCT	SCT	.17	.20	.22	.24	.27	.29	.31	.34	.36	.37	.39	.41	.42	.43	.43	.44	.44	.45	.45	.45
	BKN	BKN	.16	.18	.20	.23	.25	.27	.29	.31	.33	.35	.36	.38	.39	.40	.40	.41	.41	.41	.41	.41
	OVC	OVC	.13	.15	.17	.19	.21	.22	.24	.26	.28	.30	.31	.33	.34	.35	.35	.36	.37	.37	.37	.37
BKN	OVC	CLR	.12	.14	.15	.16	.17	.19	.20	.21	.22	.23	.24	.25	.26	.26	.26	.27	.27	.27	.27	.27
	SCT	SCT	.11	.13	.14	.15	.17	.18	.19	.20	.21	.22	.23	.24	.25	.25	.25	.25	.25	.25	.25	.25
	BKN	BKN	.11	.13	.14	.16	.18	.19	.21	.22	.23	.25	.26	.27	.28	.29	.29	.30	.30	.30	.30	.30
	OVC	OVC	.09	.10	.12	.13	.15	.16	.18	.19	.20	.22	.23	.24	.25	.26	.26	.27	.27	.28	.28	.28
OVC	CLR	CLR	.13	.15	.17	.18	.20	.22	.23	.24	.26	.27	.28	.29	.30	.31	.31	.32	.32	.33	.33	.34
	SCT	SCT	.12	.14	.15	.17	.19	.20	.22	.24	.25	.26	.27	.28	.29	.30	.31	.31	.32	.33	.33	.33
	BKN	BKN	.11	.13	.14	.16	.18	.19	.21	.22	.23	.25	.26	.27	.28	.29	.29	.30	.30	.30	.30	.31
	OVC	OVC	.09	.10	.12	.13	.15	.16	.18	.19	.20	.22	.23	.24	.25	.26	.26	.27	.27	.28	.28	.28
OVC	SCT	CLR	.12	.14	.15	.17	.19	.20	.22	.23	.24	.26	.27	.28	.29	.30	.30	.31	.31	.32	.32	.33
	SCT	SCT	.11	.13	.14	.16	.18	.19	.21	.22	.24	.25	.26	.27	.28	.29	.29	.30	.31	.31	.32	.32
	BKN	BKN	.10	.12	.13	.15	.16	.18	.19	.21	.22	.23	.25	.26	.27	.28	.29	.29	.30	.30	.30	.31
	OVC	OVC	.08	.10	.11	.12	.14	.15	.17	.18	.19	.20	.22	.23	.24	.25	.25	.26	.26	.27	.27	.27
OVC	BKN	CLR	.10	.12	.13	.15	.16	.18	.19	.20	.22	.24	.26	.27	.28	.29	.30	.31	.31	.32	.32	.33
	SCT	SCT	.09	.11	.12	.14	.16	.17	.19	.20	.22	.24	.25	.26	.27	.28	.29	.30	.31	.31	.32	.32
	BKN	BKN	.09	.10	.12	.13	.14	.16	.17	.19	.20	.22	.23	.24	.25	.26	.27	.27	.29	.29	.29	.30
	OVC	OVC	.07	.08	.10	.11	.12	.14	.15	.17	.18	.19	.20	.22	.23	.24	.25	.25	.26	.27	.27	.27
OVC	BKN	CLR	.10	.12	.13	.15	.16	.18	.19	.20	.22	.24	.26	.27	.28	.29	.30	.31	.31	.32	.32	.33
	SCT	SCT	.09	.11	.12	.14	.16	.17	.19	.20	.22	.24	.25	.26	.27	.28	.29	.30	.31	.31	.32	.32
	BKN	BKN	.09	.10	.12	.13	.14	.16	.17	.19	.20	.22	.23	.24	.25	.26	.27	.27	.29	.29	.29	.30
	OVC	OVC	.07	.08	.10	.11	.12	.14	.15	.17	.18	.19	.20	.22	.23	.24	.25	.25	.26	.27	.27	.27
OVC	OVC	CLR	.07	.08	.09	.10	.11	.12	.13	.14	.14	.14	.15	.16	.17	.17	.18	.18	.18	.19	.19	.19
	SCT	SCT	.07	.08	.09	.10	.11	.11	.11	.12	.13	.14	.15	.16	.16	.17	.17	.17	.18	.18	.18	.19
	BKN	BKN	.06	.07	.08	.09	.10	.11	.11	.12	.13	.13	.14	.15	.15	.16	.16	.17	.17	.17	.18	.18
	OVC	OVC	.05	.06	.07	.08	.09	.09	.09	.10	.11	.12	.13	.13	.14	.15	.15	.16	.16	.16	.16	.17

TABLE B-2 SOLAR TRANSMISSION (T)

THICK HIGH CLOUD
LOW ALBEDO
VIS < 11 KM

STATE 2-1-2

		CUS Z																			
LOW	MID	HIGH	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95
CLR	CLR	CLR	.54	.58	.62	.66	.69	.72	.74	.77	.79	.80	.82	.83	.84	.84	.84	.84	.85	.85	.85
	SCT	SCT	.49	.53	.57	.61	.65	.68	.71	.74	.76	.78	.80	.81	.82	.83	.83	.83	.84	.84	.84
	BKN	BKN	.45	.49	.53	.57	.60	.64	.67	.69	.72	.74	.75	.77	.78	.78	.79	.79	.79	.79	.79
	OVC	OVC	.36	.40	.43	.47	.51	.54	.57	.60	.63	.65	.67	.69	.71	.72	.73	.73	.73	.73	.73
CLR	SCT	CLR	.48	.53	.57	.61	.64	.67	.70	.73	.75	.77	.78	.80	.81	.81	.82	.82	.82	.82	.82
	SCT	SCT	.44	.49	.53	.57	.61	.64	.67	.70	.73	.75	.77	.78	.79	.80	.81	.81	.81	.81	.81
	BKN	BKN	.41	.45	.49	.53	.56	.60	.63	.66	.68	.70	.72	.74	.75	.76	.76	.77	.77	.77	.77
	OVC	OVC	.33	.37	.40	.44	.47	.51	.54	.57	.60	.63	.65	.67	.68	.70	.70	.71	.71	.71	.71
CLR	BKN	CLR	.41	.45	.49	.53	.56	.60	.63	.65	.67	.69	.71	.72	.73	.74	.75	.75	.75	.75	.75
	SCT	SCT	.38	.42	.46	.50	.54	.57	.60	.63	.66	.68	.70	.71	.72	.73	.74	.74	.74	.74	.74
	BKN	BKN	.35	.39	.43	.46	.50	.53	.56	.59	.62	.64	.66	.67	.68	.69	.70	.70	.70	.70	.70
	OVC	OVC	.29	.32	.35	.39	.42	.46	.49	.52	.54	.57	.59	.61	.62	.64	.65	.65	.65	.65	.65
CLR	OVC	CLR	.27	.30	.33	.35	.38	.40	.43	.45	.47	.48	.50	.51	.52	.53	.53	.54	.54	.54	.54
	SCT	SCT	.26	.28	.31	.34	.36	.39	.41	.43	.45	.47	.49	.50	.51	.52	.53	.53	.53	.53	.53
	BKN	BKN	.24	.26	.29	.32	.34	.37	.39	.41	.43	.45	.46	.48	.49	.50	.50	.50	.50	.50	.50
	OVC	OVC	.20	.22	.25	.27	.30	.32	.34	.37	.39	.41	.42	.44	.45	.46	.47	.47	.47	.47	.47
SCT	CLR	CLR	.49	.53	.57	.61	.65	.68	.70	.73	.75	.77	.78	.80	.81	.82	.82	.83	.83	.83	.83
	SCT	SCT	.45	.49	.53	.57	.61	.64	.68	.70	.73	.75	.77	.78	.80	.81	.81	.82	.82	.82	.82
	BKN	BKN	.41	.45	.49	.53	.57	.60	.63	.66	.68	.71	.72	.74	.75	.76	.77	.77	.77	.77	.77
	OVC	OVC	.33	.37	.40	.44	.47	.51	.54	.57	.60	.63	.65	.67	.68	.70	.71	.71	.72	.72	.72
SCT	SCT	CLR	.44	.49	.53	.57	.60	.63	.66	.69	.71	.73	.75	.77	.78	.79	.80	.81	.81	.81	.81
	SCT	SCT	.41	.45	.49	.53	.57	.60	.64	.67	.69	.72	.74	.75	.77	.78	.79	.80	.80	.80	.80
	BKN	BKN	.37	.41	.45	.49	.53	.56	.60	.63	.65	.67	.69	.71	.72	.74	.74	.75	.75	.75	.75
	OVC	OVC	.30	.34	.38	.41	.45	.48	.51	.54	.57	.60	.62	.64	.66	.67	.69	.70	.70	.70	.70
SCT	BKN	CLR	.38	.42	.46	.49	.53	.56	.59	.62	.64	.66	.68	.70	.71	.72	.73	.73	.73	.73	.73
	SCT	SCT	.35	.39	.43	.47	.50	.54	.57	.60	.63	.65	.67	.69	.70	.71	.72	.72	.73	.73	.73
	BKN	BKN	.32	.36	.40	.43	.47	.50	.53	.56	.59	.61	.63	.65	.66	.67	.68	.69	.69	.69	.69
	OVC	OVC	.26	.30	.33	.36	.40	.43	.46	.49	.52	.55	.57	.59	.60	.62	.63	.64	.64	.64	.64
SCT	OVC	CLR	.26	.28	.31	.33	.36	.38	.40	.43	.44	.46	.48	.49	.50	.51	.52	.52	.52	.52	.52
	SCT	SCT	.24	.26	.29	.32	.34	.37	.39	.41	.43	.45	.47	.48	.49	.50	.51	.52	.52	.52	.52
	BKN	BKN	.22	.25	.27	.30	.32	.35	.37	.39	.41	.43	.45	.46	.47	.48	.49	.49	.49	.49	.49
	OVC	OVC	.19	.21	.23	.26	.28	.30	.33	.35	.37	.39	.40	.42	.43	.44	.45	.46	.46	.46	.46

STATE 2-2-1 THICK HIGH CLOUD HIGH ALBEDO VIS => 11 KM

TABLE B-2 SOLAR TRANSMISSION (T)

COS Z

LOW	MID	HIGH	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95
BKN	CLR	CLR	.44	.48	.52	.55	.59	.61	.64	.66	.68	.70	.72	.73	.74	.75	.75	.76	.76	.76	.76
	SCT	SCT	.40	.44	.48	.52	.55	.59	.61	.64	.66	.68	.70	.72	.73	.74	.74	.75	.75	.75	.75
	BKN	BKN	.37	.41	.45	.48	.52	.55	.57	.60	.62	.64	.66	.68	.69	.70	.70	.71	.71	.71	.71
	OVC	OVC	.30	.33	.37	.40	.43	.46	.49	.52	.55	.57	.59	.61	.63	.64	.65	.66	.66	.66	.66
BKN	SCT	CLR	.40	.44	.48	.51	.55	.58	.60	.63	.65	.67	.69	.70	.71	.72	.73	.74	.74	.74	.74
	SCT	SCT	.37	.41	.45	.48	.52	.55	.58	.61	.63	.65	.67	.69	.70	.71	.72	.73	.73	.73	.73
	BKN	BKN	.34	.38	.41	.45	.48	.51	.54	.57	.59	.62	.63	.65	.66	.67	.68	.69	.69	.69	.69
	OVC	OVC	.28	.31	.34	.37	.41	.44	.47	.50	.52	.55	.57	.59	.60	.62	.63	.64	.64	.64	.64
BKN	BKN	CLR	.34	.38	.42	.45	.48	.51	.54	.57	.59	.61	.62	.64	.65	.66	.67	.67	.67	.67	.67
	SCT	SCT	.32	.35	.39	.43	.46	.49	.52	.55	.57	.59	.61	.63	.64	.65	.66	.66	.67	.67	.67
	BKN	BKN	.29	.33	.36	.40	.43	.46	.49	.51	.54	.56	.58	.59	.60	.61	.62	.63	.63	.63	.63
	OVC	OVC	.24	.27	.30	.33	.36	.39	.42	.45	.47	.50	.52	.54	.55	.56	.57	.58	.58	.59	.59
BKN	OVC	CLR	.23	.26	.28	.31	.33	.35	.37	.39	.41	.42	.44	.45	.46	.47	.47	.47	.48	.48	.48
	SCT	SCT	.22	.24	.27	.29	.31	.34	.36	.38	.40	.41	.43	.44	.45	.46	.47	.47	.48	.48	.48
	BKN	BKN	.20	.23	.25	.27	.30	.32	.34	.36	.38	.39	.41	.43	.44	.45	.45	.45	.45	.45	.45
	OVC	OVC	.17	.19	.21	.24	.26	.28	.30	.32	.34	.35	.37	.38	.40	.41	.41	.42	.42	.42	.42
OVC	CLR	CLR	.26	.29	.32	.35	.38	.41	.43	.45	.47	.49	.50	.52	.53	.54	.55	.56	.56	.57	.57
	SCT	SCT	.24	.27	.30	.33	.36	.39	.41	.44	.46	.48	.49	.51	.52	.53	.54	.55	.56	.56	.56
	BKN	BKN	.22	.25	.28	.31	.34	.36	.39	.41	.43	.45	.47	.48	.49	.50	.51	.52	.52	.53	.53
	OVC	OVC	.18	.21	.23	.26	.29	.31	.34	.36	.38	.40	.42	.44	.45	.46	.47	.48	.49	.49	.49
OVC	SCT	CLR	.24	.27	.30	.33	.36	.38	.41	.43	.45	.47	.48	.50	.51	.52	.53	.54	.55	.55	.55
	SCT	SCT	.22	.25	.28	.31	.34	.37	.39	.42	.44	.46	.47	.49	.50	.52	.53	.53	.54	.55	.55
	BKN	BKN	.20	.23	.26	.29	.32	.34	.37	.39	.41	.43	.45	.46	.48	.49	.50	.51	.51	.51	.52
	OVC	OVC	.17	.19	.22	.25	.27	.30	.32	.34	.37	.39	.40	.42	.44	.45	.46	.47	.48	.48	.48
OVC	BKN	CLR	.21	.24	.27	.29	.32	.35	.37	.39	.41	.43	.44	.46	.47	.48	.49	.49	.50	.50	.51
	SCT	SCT	.19	.22	.25	.28	.31	.33	.36	.38	.40	.42	.43	.45	.46	.47	.48	.49	.50	.50	.50
	BKN	BKN	.18	.21	.23	.26	.29	.31	.34	.36	.38	.39	.41	.43	.44	.45	.46	.47	.47	.47	.47
	OVC	OVC	.15	.17	.20	.22	.25	.27	.29	.31	.33	.35	.37	.39	.40	.41	.42	.43	.44	.44	.44
OVC	OVC	CLR	.15	.17	.19	.21	.23	.24	.26	.28	.29	.30	.32	.33	.34	.34	.35	.36	.36	.36	.37
	SCT	SCT	.14	.16	.18	.20	.22	.24	.25	.27	.28	.30	.31	.32	.33	.34	.35	.35	.36	.36	.36
	BKN	BKN	.13	.15	.17	.19	.21	.22	.24	.26	.27	.28	.30	.31	.32	.32	.33	.34	.34	.34	.34
	OVC	OVC	.11	.13	.14	.16	.18	.20	.21	.23	.24	.26	.27	.28	.29	.30	.31	.31	.32	.32	.32

TABLE 8-2 SOLAR TRANSMISSION (T)

THICK HIGH CLOUD
HIGH ALBEDO
VIS > 11 KM

STATE 2-2-1

COS Z

	LOW	MID	HIGH	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95
CLR	CLR	CLR	CLR	.48	.52	.56	.59	.63	.66	.68	.71	.73	.75	.76	.78	.79	.79	.80	.80	.80	.80	.80
	SCT	SCT	SCT	.44	.48	.52	.56	.59	.62	.65	.68	.71	.73	.74	.76	.77	.78	.79	.79	.79	.79	.79
	BKN	BKN	BKN	.40	.44	.48	.51	.55	.58	.61	.64	.66	.68	.70	.71	.73	.73	.74	.74	.74	.74	.74
	OVC	OVC	OVC	.32	.36	.39	.42	.45	.49	.52	.55	.57	.60	.62	.64	.66	.67	.68	.68	.68	.68	.68
CLR	SCT	CLR	CLR	.43	.47	.51	.55	.58	.61	.64	.67	.69	.71	.73	.74	.75	.76	.77	.77	.77	.77	.77
	SCT	SCT	SCT	.40	.44	.48	.51	.55	.58	.61	.64	.67	.69	.71	.73	.74	.75	.76	.76	.76	.76	.76
	BKN	BKN	BKN	.36	.40	.44	.47	.51	.54	.57	.60	.63	.65	.67	.68	.70	.71	.71	.72	.72	.72	.72
	OVC	OVC	OVC	.30	.33	.36	.39	.43	.46	.49	.52	.55	.57	.60	.62	.63	.65	.66	.66	.66	.66	.66
CLR	BKN	CLR	CLR	.37	.40	.44	.47	.51	.54	.57	.59	.62	.64	.66	.67	.68	.69	.70	.70	.70	.70	.70
	SCT	SCT	SCT	.34	.37	.41	.45	.48	.51	.54	.57	.60	.62	.64	.66	.67	.68	.69	.69	.69	.69	.69
	BKN	BKN	BKN	.31	.35	.38	.41	.45	.48	.51	.54	.56	.58	.60	.62	.63	.64	.65	.65	.65	.65	.65
	OVC	OVC	OVC	.26	.29	.32	.35	.38	.41	.44	.47	.49	.52	.54	.56	.57	.59	.60	.60	.60	.60	.60
CLR	OVC	CLR	CLR	.24	.27	.29	.31	.34	.36	.38	.40	.42	.43	.45	.46	.47	.48	.48	.49	.49	.49	.49
	SCT	SCT	SCT	.23	.25	.27	.30	.32	.34	.36	.39	.40	.42	.44	.45	.46	.47	.48	.48	.48	.48	.48
	BKN	BKN	BKN	.21	.23	.26	.28	.30	.32	.34	.36	.38	.40	.42	.43	.44	.45	.45	.46	.46	.46	.46
	OVC	OVC	OVC	.18	.20	.22	.24	.26	.28	.30	.32	.34	.36	.38	.39	.40	.41	.42	.43	.43	.43	.43
SCT	CLR	CLR	CLR	.44	.48	.52	.56	.59	.62	.65	.68	.70	.72	.74	.75	.76	.77	.78	.78	.78	.78	.78
	SCT	SCT	SCT	.40	.44	.48	.52	.56	.59	.62	.65	.68	.70	.72	.73	.75	.76	.77	.77	.77	.77	.77
	BKN	BKN	BKN	.37	.41	.45	.48	.52	.55	.58	.61	.63	.66	.67	.69	.70	.72	.72	.73	.73	.73	.73
	OVC	OVC	OVC	.30	.33	.36	.40	.43	.46	.49	.52	.55	.58	.60	.62	.64	.65	.66	.67	.67	.67	.67
SCT	SCT	CLR	CLR	.40	.44	.48	.51	.55	.58	.61	.64	.66	.68	.70	.72	.73	.74	.75	.76	.76	.76	.76
	SCT	SCT	SCT	.37	.41	.44	.48	.52	.55	.58	.61	.64	.67	.69	.70	.72	.73	.74	.75	.75	.75	.75
	BKN	BKN	BKN	.34	.37	.41	.45	.48	.51	.55	.57	.60	.62	.65	.66	.68	.69	.70	.71	.71	.71	.71
	OVC	OVC	OVC	.27	.31	.34	.37	.40	.44	.47	.50	.53	.55	.58	.60	.61	.63	.64	.65	.65	.65	.65
SCT	BKN	CLR	CLR	.34	.38	.41	.45	.48	.51	.54	.57	.59	.61	.63	.65	.66	.67	.68	.69	.69	.69	.69
	SCT	SCT	SCT	.31	.35	.39	.42	.46	.49	.52	.55	.57	.60	.62	.64	.65	.66	.67	.68	.68	.68	.68
	BKN	BKN	BKN	.29	.32	.36	.39	.43	.46	.49	.51	.54	.56	.58	.60	.61	.63	.63	.64	.64	.64	.64
	OVC	OVC	OVC	.24	.27	.30	.33	.36	.39	.42	.45	.47	.50	.52	.54	.56	.57	.58	.59	.59	.59	.59
SCT	OVC	CLR	CLR	.23	.25	.28	.30	.32	.34	.36	.38	.40	.42	.43	.45	.46	.47	.47	.48	.48	.48	.48
	SCT	SCT	SCT	.21	.24	.26	.28	.31	.33	.35	.37	.39	.41	.43	.44	.45	.46	.47	.47	.48	.48	.48
	BKN	BKN	BKN	.20	.22	.24	.27	.29	.31	.33	.35	.37	.39	.40	.42	.43	.44	.45	.45	.45	.45	.45
	OVC	OVC	OVC	.17	.19	.21	.23	.25	.27	.29	.31	.33	.35	.37	.38	.39	.41	.41	.42	.42	.42	.42

TABLE B-2 SOLAR TRANSMISSION (τ)

THICK HIGH CLOUD
HIGH ALBEDO
VIS < 11 KM

STATE 2-2-2

COS Z

LOW	MID	HIGH	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.90	.95
BKN	CLR	CLR	.40	.44	.48	.51	.54	.57	.60	.62	.64	.66	.68	.69	.70	.71	.72	.72	.72
	SCT	SCT	.37	.40	.44	.48	.51	.54	.57	.60	.62	.64	.66	.68	.69	.70	.71	.72	.72
	BKN	BKN	.34	.37	.41	.44	.48	.51	.53	.56	.58	.60	.62	.64	.65	.66	.67	.67	.67
	OVC	OVC	.27	.30	.34	.37	.40	.43	.46	.49	.51	.53	.56	.58	.59	.60	.61	.62	.62
BKN	SCT	CLR	.36	.40	.44	.47	.50	.53	.56	.59	.61	.63	.65	.66	.68	.69	.69	.70	.70
	SCT	SCT	.33	.37	.41	.44	.48	.51	.54	.57	.59	.61	.63	.65	.66	.68	.69	.70	.70
	BKN	BKN	.31	.34	.38	.41	.44	.48	.50	.53	.56	.58	.60	.61	.63	.64	.65	.65	.65
	OVC	OVC	.25	.28	.31	.34	.37	.40	.43	.46	.49	.51	.53	.55	.57	.58	.59	.61	.61
BKN	BKN	CLR	.31	.35	.38	.41	.44	.47	.50	.53	.55	.57	.59	.60	.61	.62	.63	.64	.64
	SCT	SCT	.29	.32	.36	.39	.42	.45	.48	.51	.53	.55	.57	.59	.60	.61	.62	.63	.63
	BKN	BKN	.27	.30	.33	.36	.39	.42	.45	.48	.50	.52	.54	.56	.57	.58	.59	.59	.59
	OVC	OVC	.22	.25	.28	.31	.33	.36	.39	.42	.44	.46	.49	.50	.52	.53	.54	.55	.55
BKN	OVC	CLR	.21	.24	.26	.28	.30	.32	.34	.36	.38	.39	.40	.42	.43	.44	.44	.45	.45
	SCT	SCT	.20	.22	.24	.27	.29	.31	.33	.35	.37	.38	.40	.41	.42	.43	.44	.45	.45
	BKN	BKN	.19	.21	.23	.25	.27	.29	.31	.33	.35	.36	.38	.39	.40	.41	.42	.42	.42
	OVC	OVC	.16	.18	.19	.21	.23	.25	.27	.29	.31	.33	.34	.36	.37	.38	.39	.40	.40
OVC	CLR	CLR	.26	.29	.32	.35	.38	.41	.43	.45	.47	.49	.50	.52	.53	.54	.55	.56	.57
	SCT	SCT	.24	.27	.30	.33	.36	.39	.41	.44	.46	.48	.49	.51	.52	.53	.54	.56	.56
	BKN	BKN	.22	.25	.28	.31	.34	.36	.39	.41	.43	.45	.47	.48	.49	.50	.51	.52	.53
	OVC	OVC	.18	.21	.23	.26	.29	.31	.34	.36	.38	.40	.42	.44	.45	.46	.47	.48	.49
OVC	SCT	CLR	.24	.27	.30	.33	.36	.38	.41	.43	.45	.47	.48	.50	.51	.52	.53	.54	.55
	SCT	SCT	.22	.25	.28	.31	.34	.37	.39	.42	.44	.46	.47	.49	.50	.52	.53	.54	.55
	BKN	BKN	.20	.23	.26	.29	.32	.34	.37	.39	.41	.43	.45	.46	.48	.49	.50	.51	.52
	OVC	OVC	.17	.19	.22	.25	.27	.30	.32	.34	.37	.39	.40	.42	.44	.45	.46	.47	.48
OVC	BKN	CLR	.21	.24	.27	.29	.32	.35	.37	.39	.41	.43	.44	.46	.47	.48	.49	.50	.51
	SCT	SCT	.19	.22	.25	.28	.31	.33	.36	.38	.40	.42	.43	.45	.46	.47	.48	.49	.50
	BKN	BKN	.18	.21	.23	.26	.29	.31	.34	.36	.38	.39	.41	.43	.44	.45	.46	.47	.47
	OVC	OVC	.15	.17	.20	.22	.25	.27	.29	.31	.33	.35	.37	.39	.40	.41	.42	.43	.44
OVC	OVC	CLR	.15	.17	.19	.21	.23	.24	.26	.28	.29	.30	.32	.33	.34	.34	.35	.36	.37
	SCT	SCT	.14	.16	.18	.20	.22	.24	.25	.27	.28	.30	.31	.32	.33	.34	.35	.36	.36
	BKN	BKN	.13	.15	.17	.19	.21	.22	.24	.26	.27	.28	.30	.31	.32	.32	.33	.34	.34
	OVC	OVC	.11	.13	.14	.16	.18	.20	.21	.23	.24	.26	.27	.28	.29	.30	.31	.32	.32

TABLE B-2 SOLAR TRANSMISSION (T)

THICK HIGH CLOUD
HIGH ALBEDO
VIS < 11 KM

STATE 2-2-2

TABLE B-3. RATIO OF SOLAR IRRADIANCE (W_{SUN}) ON A 10,000 FT GROUND SURFACE TO THAT WHICH WOULD HAVE BEEN OBSERVED IF THE GROUND WERE AT SEA LEVEL

	COS Z									
	.05	.15	.25	.35	.45	.55	.65	.75	.85	.95
Ground Albedo = 0.15										
	1.33	1.28	1.19	1.15	1.12	1.10	1.10	1.09	1.09	1.09
Ground Albedo = 0.80										
	1.28	1.23	1.15	1.12	1.09	1.08	1.07	1.07	1.07	1.07

For ground surfaces with elevations less than 10,000 ft but more than 2,000 ft, interpolate for the corresponding elevation.

Sky Radiation (W_{sky})

Fig. B-2 consists of nomograms that produce the clear sky radiation as a function of the forecast surface temperature and dewpoint. Four nomograms cover four different ranges of surface temperature.

These nomograms produce values of the clear sky irradiance for terrain near sea level. At high terrain elevation the irradiance values will differ slightly. The differences may be positive or negative and are a function of elevation, temperature, and dewpoint. Correction tables are under development. The approximate maximum values of the difference will be:

<u>Terrain Elevation (km)</u>	<u>Maximum Difference (watts/m²)</u>	<u>Approximate Percentage of Clear Sky Irradiance</u>
1	5	2
2	11	4
3	15	5

Table B-4 provides corrections that are added to the clear sky irradiance values when cloud cover is forecast. The user enters the table with the amount and height above ground level of the two lowest cloud levels forecast to obtain the correction.

The values for the cloud correction in Table B-4 are strictly valid only for terrain near sea level. At high terrain elevations the cloud corrections will be slightly larger. However, the magnitude of the differences will be small (probably less than 10 watts/m²) and does not represent a major error. The largest error will occur with low clouds at high terrain elevations. Estimates of the maximum error incurred by using Table B-4 values at high terrain elevations are:

<u>Terrain Elevation (km)</u>	<u>Maximum Error (watts/m²)</u>	<u>Approximate Percentage of Total Cloudy Sky Irradiance</u>
1	5	1.5
2	8	2.0
3	10	3.0

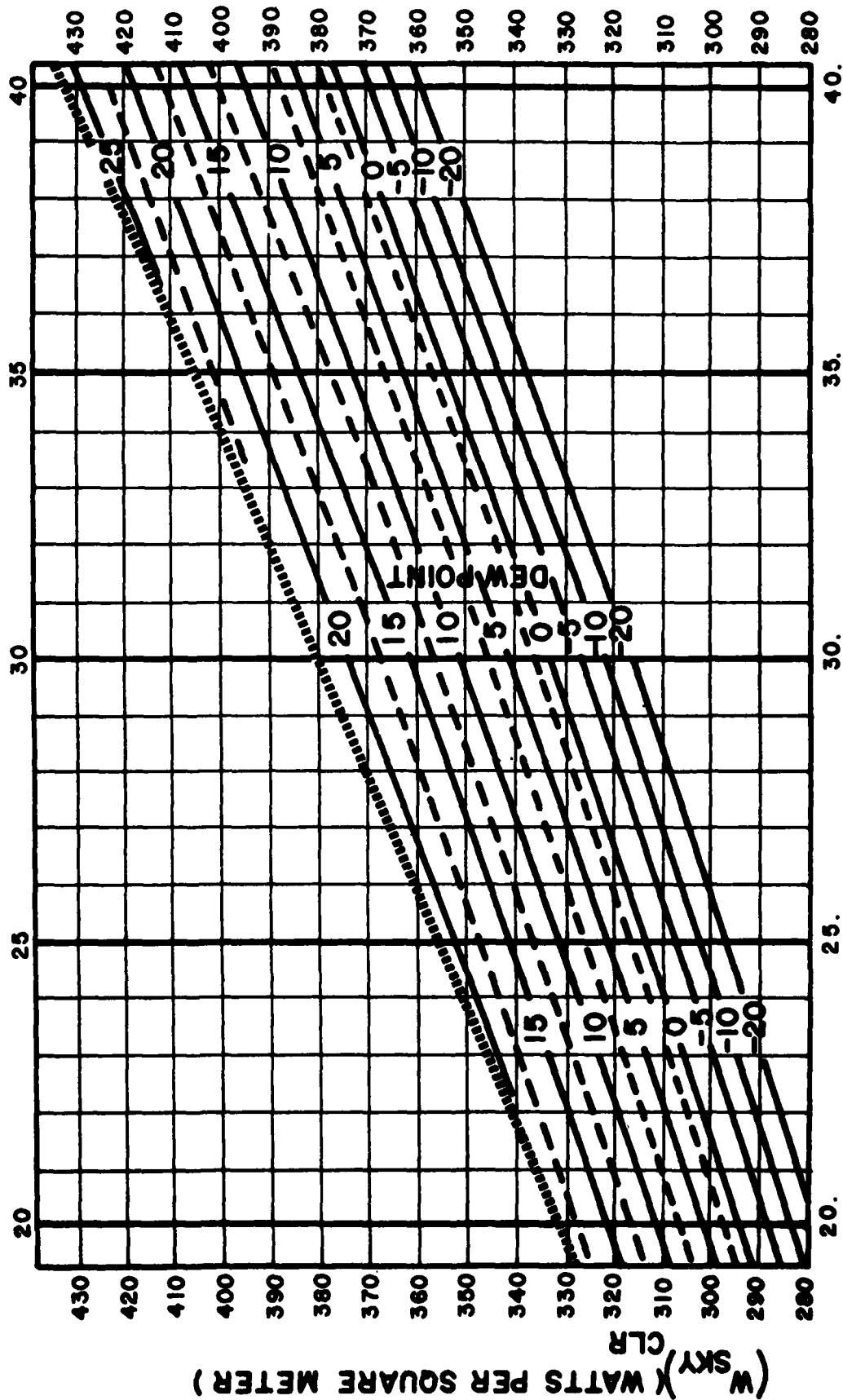


Fig. B-2. Sky Radiation (W_{SKY}) Nomogram
20° to 40° C

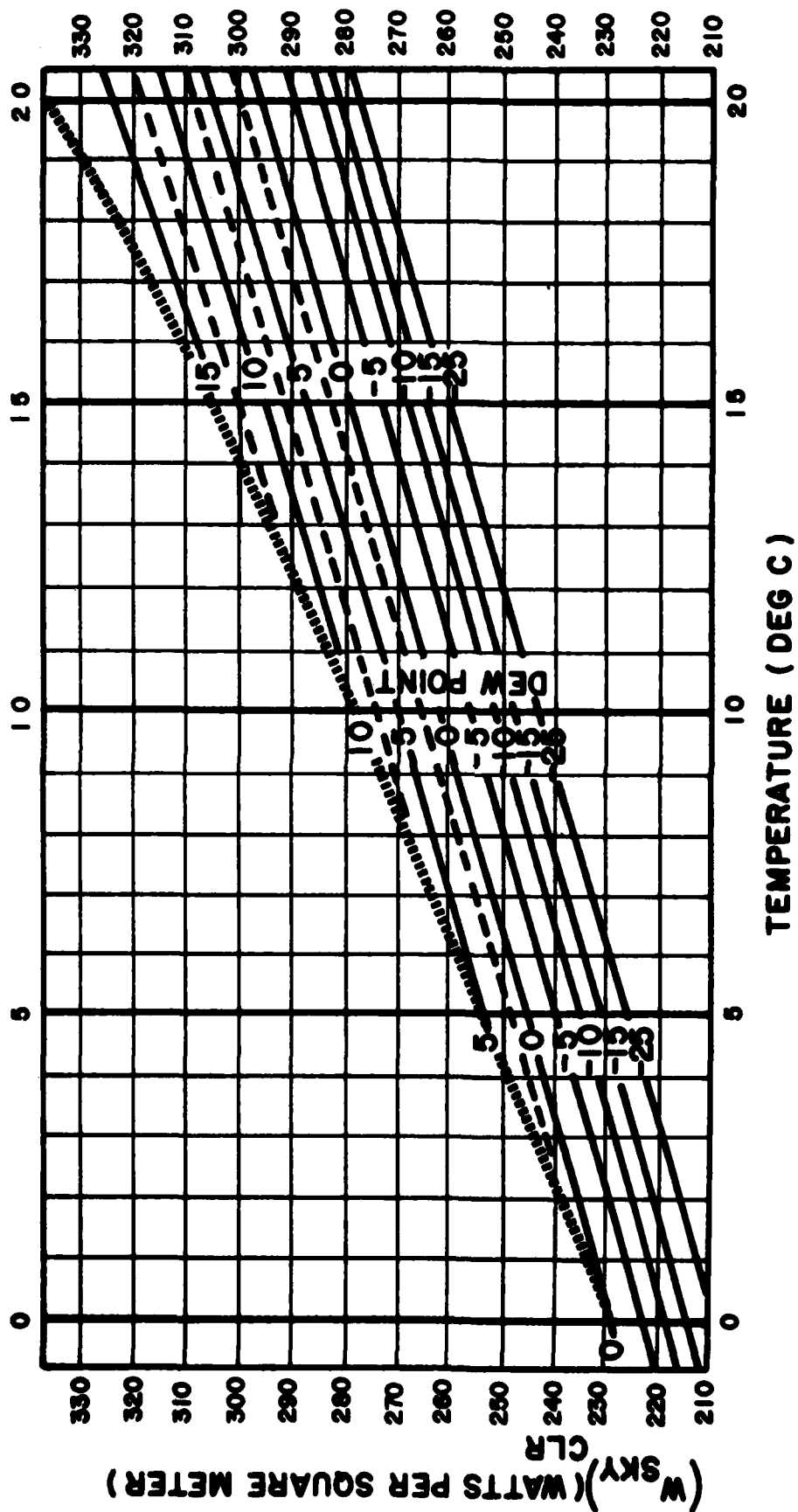


Fig. B-2. (Continued)
0°C to 20°C

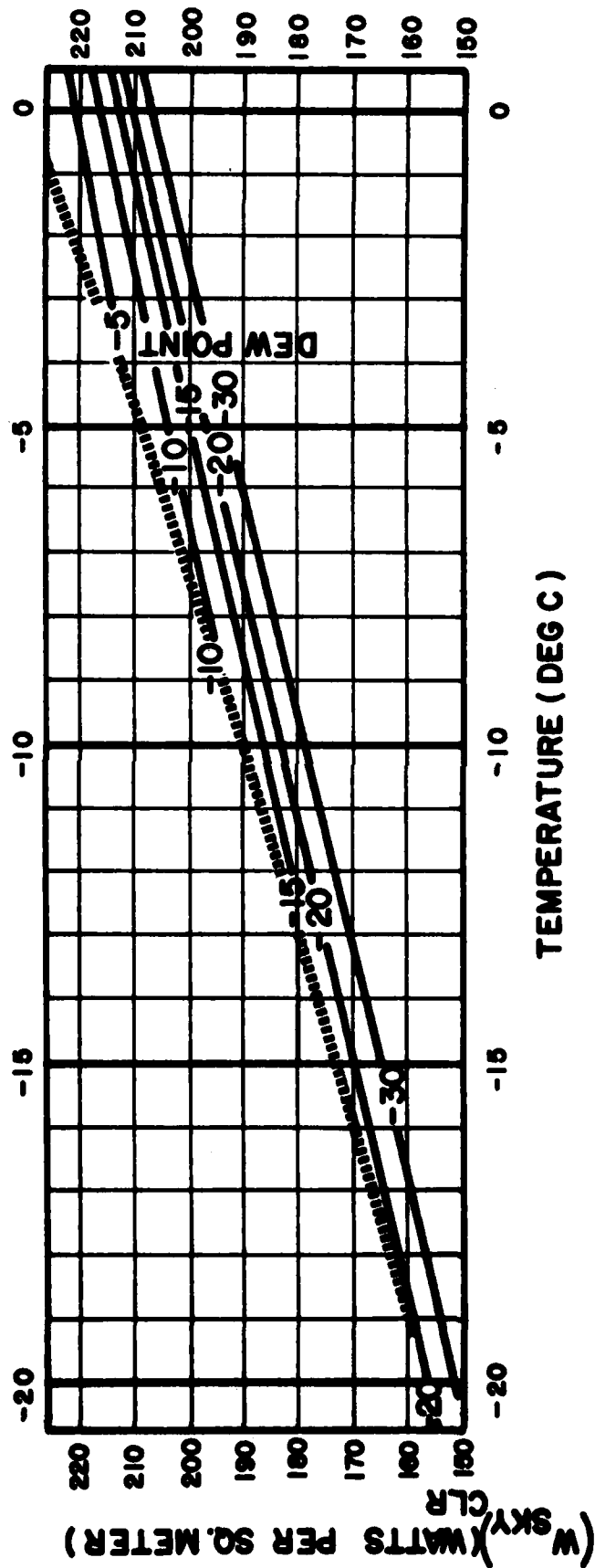


Fig. B-2: (Continued)
-20°C to 0°C

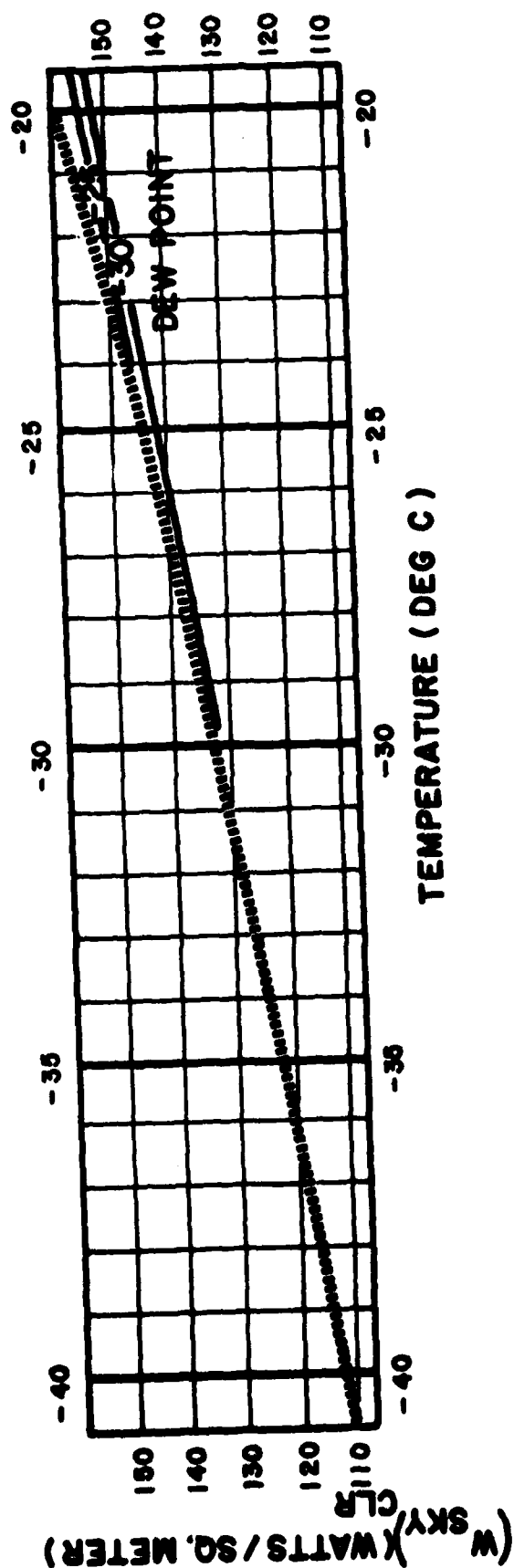


Fig. B-2. (Continued)
-40°C to -20°C

LOWEST CLOUD LEVEL

			Low			Middle			High		
			SCT	BKN	OVC	SCT	BKN	OVC	SCT	BKN	OVC
			19	57	76	15	45	60	9	27	35
No Second Level	Second Cloud Level	SCT	31	61	76	—	—	—	—	—	—
		BKN	53	65	76	—	—	—	—	—	—
		OVC	65	72	76	—	—	—	—	—	—
HIGH		SCT	26	59	76	22	47	60	—	—	—
		BKN	39	61	76	35	49	60	—	—	—
		OVC	47	66	76	43	53	60	—	—	—

TABLE B-4. SKY RADIATION (W_{SKY}) CLOUD CORRECTION (watts/m²)